

This document gives pertinent information concerning the reissuance of the VPDES Permit listed below. This permit is being processed as a Minor, Municipal permit. The discharge results from the operation of a 0.0063 MGD wastewater treatment plant with a proposed expansion to 0.01175 MGD. The effluent limitations and special conditions contained in this permit will maintain the Water Quality Standards of 9 VAC 25-260-00 et seq.

1. Facility Name and Mailing Address: Lucketts Elementary School
21000 Education Court
Ashburn, VA 20148

Facility Location: 14550 James Monroe Highway
Leesburg, VA 20176

Facility Contact Name: William G. Kolster
Telephone Number: 703-771-6462
2. Permit No.: VA0021750
Current Expiration Date: 5 January 2009

Other VPDES Permits: Not Applicable

Other Permits: Not Applicable

E2/E3/E4 Status: Not Applicable
3. Owner Name: Loudoun County School Board
Owner Contact/Title: William G. Kolster
Director of Facilities Services
Telephone Number: 703-771-6462
4. Application Complete Date: 6 June 2008
Permit Drafted By: Douglas Frasier
Date Drafted: 9 September 2008
Draft Permit Reviewed By: Alison Thompson
Date Reviewed: 15 September 2008
Public Comment Period: Start Date: 13 November 2008
End Date: 15 December 2008
5. Receiving Waters Information: See **Attachment 1** for the Flow Frequency Determination
Receiving Stream Name: Limestone Branch, UT
Drainage Area at Outfall: 0.14 square miles
River Mile: 3.69
Stream Basin: Potomac River
Subbasin: Potomac River
Section: 8
Stream Class: III
Special Standards: PWS
Waterbody ID: VAN-A03R
7Q10 Low Flow: 0.0 MGD
7Q10 High Flow: 0.0 MGD
1Q10 Low Flow: 0.0 MGD
1Q10 High Flow: 0.0 MGD
Harmonic Mean Flow: 0.0 MGD
30Q5 Flow: 0.0 MGD
303(d) Listed: No
30Q10 Flow: 0.0 MGD
TMDL Approved: Yes – downstream (bacteria)
Date TMDL Approved: 6 July 2004
6. Statutory or Regulatory Basis for Special Conditions and Effluent Limitations:

<input checked="" type="checkbox"/> State Water Control Law <input checked="" type="checkbox"/> Clean Water Act <input checked="" type="checkbox"/> VPDES Permit Regulation <input checked="" type="checkbox"/> EPA NPDES Regulation	<input type="checkbox"/> EPA Guidelines <input checked="" type="checkbox"/> Water Quality Standards <input type="checkbox"/> Other
---	--
7. Licensed Operator Requirements: Class IV
8. Reliability Class: Class II

9. Permit Characterization:

<input type="checkbox"/> Private	<input checked="" type="checkbox"/> Effluent Limited	<input checked="" type="checkbox"/> Possible Interstate Effect
<input type="checkbox"/> Federal	<input checked="" type="checkbox"/> Water Quality Limited	<input type="checkbox"/> Compliance Schedule Required
<input type="checkbox"/> State	<input type="checkbox"/> Toxics Monitoring Program Required	<input type="checkbox"/> Interim Limits in Permit
<input checked="" type="checkbox"/> POTW	<input type="checkbox"/> Pretreatment Program Required	<input type="checkbox"/> Interim Limits in Other Document
<input checked="" type="checkbox"/> TMDL		

10. Wastewater Sources and Treatment Description:

The Lucketts Elementary School wastewater treatment plant (WWTP) serves an elementary school, consisting of approximately 250 students and staff, the Lucketts Community Center (includes a day care of approximately 60 children) and the Lucketts Volunteer Fire Station. Treatment consists of a grease trap, septic tank, dosing tank, sand filter bed, chlorine disinfection and dechlorination.

The facility has requested an expanded flow tier of 0.01175 MGD in order to accommodate a proposed increase in the number of students and staff at the elementary from 250 to 975.

See **Attachment 2** for a facility schematic/diagram.

TABLE 1 OUTFALL DESCRIPTION				
Outfall Number	Discharge Sources	Treatment	Design Flow	Outfall Latitude and Longitude
001	Domestic Wastewater	See Item 10 above.	0.0063 MGD	39° 12' 35" N 77° 31' 56" W
See Attachment 3 for topographic map.				

11. Sludge Treatment and Disposal Methods:

Domestic sludge is not generated on site. Septic tanks are pumped routinely by a licensed contract hauler and taken to an approved Loudoun Water facility for disposal and treatment.

12. Discharges, Intakes, Monitoring Stations, Other Items in Vicinity of Discharge:

TABLE 2 DISCHARGES, INTAKES & MONITORING STATIONS		
ID / Permit Number	Description	Latitude / Longitude
VA0092380	Elysian Heights Sewage Treatment Plant (Potomac River)	39° 14' 50" / 77° 29' 16"
VA0061280	V.I.C.A. Sewage Treatment Plant	39° 13' 45" / 77° 31' 50"
VA0074934	One Stop Trailer Park Sewage Treatment Plant	39° 13' 19" / 77° 31' 59"
VA0021750	Lucketts Elementary School Sewage Treatment Plant	39° 12' 35" / 77° 31' 56"
1aXAQ000.85	DEQ Water Quality Monitoring Station	39° 10' 27" / 77° 31' 47"
VA0067938	North Spring Behavioral Healthcare Sewage Treatment Plant (different unnamed tributary to Limestone Branch)	39° 08' 05" / 77° 34' 04"
	Town of Leesburg – raw water intake (Potomac River)	39° 06' 56" / 77° 30' 18"
VA0092282	Town of Leesburg Water Pollution Control Facility (Potomac River)	39° 06' 54" / 77° 30' 15"
	Fairfax Water – raw water intake (Potomac River)	39° 03' 46" / 77° 20' 36"

13. Material Storage:

TABLE 3 MATERIAL STORAGE		
Materials Description	Volume Stored	Spill / Stormwater Prevention Measures
Hypochlorite solution	5 cases	Stored inside locked control building
Dechlorination tablets	1 bucket	

14. Site Inspection: Performed by NRO staff (see **Attachment 4**).**15. Receiving Stream Water Quality and Water Quality Standards:**a). Ambient Water Quality Data

Downstream impairments for recreational use exist downstream of the discharge due to bacterial exceedences. A bacteria TMDL was developed and later approved by the U.S. EPA on 6 July 2004. The receiving stream is not listed as impaired nor was it specifically included in the approved TMDL; however, the facility did receive a Wasteload Allocation (WLA) for *E. coli*.

Even though the WLA for the facility was determined utilizing the current design flow of 0.0063 MGD, the TMDL did include a growth factor which will allow for the proposed flow tier of 0.01175 MGD.

b). Receiving Stream Water Quality Criteria

Part IX of 9 VAC 25-260(360-550) designates classes and special standards applicable to defined Virginia river basins and sections. The receiving stream Limestone Branch, UT, is located within Section 8 of the Potomac River Basin and is classified as Class III water.

At all times, Class III waters must achieve a dissolved oxygen (D.O.) of 4.0 mg/L or greater, a daily average D.O. of 5.0 mg/L or greater, a temperature that does not exceed 32°C and maintain a pH of 6.0-9.0 standard units (S.U.).

Attachment 5 details other water quality criteria applicable to the receiving stream.

Ammonia:

Staff has re-evaluated the effluent data for pH and finds no significant difference from the data used to establish the ammonia criteria and subsequent effluent limits in the previous permit for the 0.0063 MGD flow tier. In addition, the default value of 25°C will be used as in the previous reissuance since there is no ambient or effluent temperature data available.

Metals Criteria:

The Water Quality Criteria for some metals are dependent on the receiving stream's hardness (expressed as mg/L calcium carbonate). Since the 7Q10 of the receiving stream is zero and there is no ambient data available, agency guidance states that the effluent hardness may be utilized. The previous reissuance used a value of 150 mg/L CaCO₃ to ascertain the criteria. Given the source and lack of variability in the waste stream, it is staff's best professional judgement to use the aforementioned value in this reissuance. The hardness-dependent metals criteria shown in **Attachment 5** are based on this value.

Bacteria Criteria:

The Virginia Water Quality Standards (9 VAC 25-260-170.B.) states sewage discharges shall be disinfected to achieve the following criteria:

E. coli bacteria per 100 mL of water shall not exceed the following:

	Geometric Mean ¹	Single Sample Maximum
Freshwater <i>E. coli</i> (N/100 mL)	126	235

¹For two or more samples taken during any calendar month

c). Receiving Stream Special Standards

The State Water Control Board's Water Quality Standards, River Basin Section Tables (9 VAC 25-260-360, 370 and 380) designates the river basins, sections, classes and special standards for surface waters of the Commonwealth of Virginia. The receiving stream, Limestone Branch, UT, is located within Section 8 of the Potomac River Basin. This section has been designated with a special standard of PWS.

Special Standard PWS designates a public water supply intake. The Board's Water Quality Standards establish numerical standards for specific parameters calculated to protect human health from toxic effects through drinking water and fish consumption. See 9 VAC 25-260-140.B. for applicable criteria. Given the source of the wastewater, it is staff's best professional judgement those specific parameters are not present in this discharge.

d). Threatened or Endangered Species

The Virginia DGIF Fish and Wildlife Information System Database was searched for records to determine if there are threatened or endangered species in the vicinity of the discharge. The following threatened or endangered species were identified within a 2 mile radius of the discharge: Wood Turtle, Upland Sandpiper (song bird), Loggerhead Shrike (song bird), Henslow's Sparrow (song bird), Bald Eagle, Green Floater (mussel) and the Migrant Loggerhead Shrike (song bird). The limits proposed in this draft permit are protective of the Virginia Water Quality Standards and therefore, protect the threatened and endangered species found near the discharge.

16. Antidegradation (9 VAC 25-260-30):

All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The receiving stream has been classified as Tier 1 based on the 7Q10 and 1Q10 critical flows. Permit limits proposed have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

17. Effluent Screening, Wasteload Allocation and Effluent Limitation Development:

To determine water quality-based effluent limitations for a discharge, the suitability of data must first be determined. Data is suitable for analysis if one or more representative data points are equal to or above the quantification level ("QL") and the data represent the exact pollutant being evaluated.

Next, the appropriate Water Quality Standards (WQS) are determined for the pollutants in the effluent. Then, the Wasteload Allocations (WLA's) are calculated. In this case, since the critical flows 7Q10 and 1Q10 have been determined to be zero, the WLA's are equal to the WQS. The WLA values are then compared with available effluent data to determine the need for effluent limitations. Effluent limitations are needed if the 97th percentile of the daily effluent concentration values is greater than the acute wasteload allocation or if the 97th percentile of the four-day average effluent concentration values is greater than the chronic wasteload allocation. Effluent limitations are based on the most limiting WLA, the required sampling frequency and statistical characteristics of the effluent data.

a). Effluent Screening

Effluent data obtained from Discharge Monitoring Reports (DMRs) have been reviewed and determined to be suitable for evaluation. Please see **Attachment 6** for a summary of effluent data.

b). Mixing Zones and Wasteload Allocations (WLAs)

Wasteload allocations (WLAs) are calculated for those parameters in the effluent with the reasonable potential to cause an exceedance of water quality criteria. The basic calculation for establishing a WLA is the steady state complete mix equation:

$$WLA = \frac{C_o [Q_e + (f) (Q_s)] - [(C_s) (f) (Q_s)]}{Q_e}$$

Where:	WLA	=	Wasteload allocation
	C _o	=	In-stream water quality criteria
	Q _e	=	Design flow
	Q _s	=	Critical receiving stream flow (1Q10 for acute aquatic life criteria; 7Q10 for chronic aquatic life criteria; harmonic mean for carcinogen-human health criteria; 30Q10 for ammonia criteria; and 30Q5 for non-carcinogen human health criteria)
	f	=	Decimal fraction of critical flow
	C _s	=	Mean background concentration of parameter in the receiving stream.

The water segment receiving the discharge via Outfall 001 is considered to have a 7Q10 and 1Q10 of 0.0 MGD. As such, there is no mixing zone and the WLA is equal to the C_o.

c). Effluent Limitations and Monitoring, Outfall 001 – Toxic Pollutants

9 VAC 25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Those parameters with WLAs that are near effluent concentrations are evaluated for limits.

The VPDES Permit Regulation at 9 VAC 25-31-230.D. requires that monthly and weekly average limitations be imposed for continuous discharges from POTWs and monthly average and daily maximum limitations be imposed for all other continuous non-POTW discharges.

1) Ammonia as N:

Staff reevaluated pH effluent data and concluded that it was not significantly different than what was used previously to derive ammonia criteria. Therefore, existing ammonia limitations are proposed to continue in the reissued permit for the 0.0063 MGD flow tier (see **Attachment 7**).

The facility has requested that a proposed expanded flow of 0.01175 MGD be included with this reissuance. Given the facility's past performance in meeting the current ammonia limit of 2.0 mg/L, it is staff's best professional judgement that this limitation also be proposed for the expanded flow tier.

2) Total Residual Chlorine:

Chlorine is used for disinfection and is potentially in the discharge. Staff calculated WLAs for TRC using current critical flows. In accordance with current DEQ guidance, staff used a default data point of 0.2 mg/L and the calculated WLAs to derive limits. A monthly average of 0.008 mg/L and a weekly average limit of 0.010 mg/L are proposed for this discharge (see **Attachment 8**).

3) Metals/Organics:

No limits are proposed with this reissuance.

d). Effluent Limitations and Monitoring, Outfall 001 – Conventional and Non-Conventional Pollutants

No changes to Dissolved Oxygen (D.O.), Biochemical Oxygen Demand-5 day (BOD₅), Total Suspended Solids (TSS), Ammonia as N and pH limitations are proposed.

Dissolved Oxygen and BOD₅ limitations were based upon a stream model conducted in 1969/1970 during the permit issuance. Model documentation is lacking; however, downstream water quality data does not indicate an adverse impact from this facility. Therefore, the existing limitations will be maintained.

It is staff's practice to equate the Total Suspended Solids limits with the BOD₅ limits since the two pollutants are closely related in terms of treatment of domestic sewage.

pH limitations are set at the water quality criteria.

E. coli limitations are in accordance with the Water Quality Standards 9 VAC 25-260-170.

e). Effluent Limitations and Monitoring Summary

The effluent limitations are presented in the following table. Limits were established for BOD₅, Total Suspended Solids, Ammonia, pH, Dissolved Oxygen, Total Residual Chlorine and *E. coli*.

The limit for Total Suspended Solids is based on Best Professional Judgement.

The mass loading (kg/d), for monthly and weekly averages, were calculated by multiplying the concentration values (mg/L), with the flow values (in MGD) and a conversion factor of 3.785.

Sample Type and Frequency are in accordance with the recommendations in the VPDES Permit Manual.

18. Antibacksliding:

All limits in this permit are at least as stringent as those previously established. Backsliding does not apply to this reissuance.

19a. Effluent Limitations/Monitoring Requirements:

Design flow is 0.0063 MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the issuance of the CTO for the 0.01175 MGD facility or the expiration date, whichever occurs first.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS						MONITORING REQUIREMENTS	
		<u>Monthly Average</u>		<u>Weekly Average</u>		<u>Minimum</u>	<u>Maximum</u>	<u>Frequency</u>	<u>Sample Type</u>
Flow (MGD)	NA	NL		N/A		N/A	NL	1/D	ESTIMATE
pH	3	N/A		N/A		6.0 S.U.	9.0 S.U.	1/D	Grab
BOD ₅	3	24 mg/L	0.57 kg/day	36 mg/L	0.86 kg/day	N/A	N/A	1/M	Grab
Total Suspended Solids (TSS)	2	24 mg/L	0.57 kg/day	36 mg/L	0.86 kg/day	N/A	N/A	1/M	Grab
DO	3	N/A		N/A		6.0 mg/L	N/A	1/D	Grab
Ammonia, as N (mg/L)	3	2.0 mg/L		2.0 mg/L		N/A	N/A	1/M	Grab
<i>E. coli</i> (Geometric Mean)	2,3	126 n/100mL		N/A		N/A	N/A	2/M*	Grab
Total Residual Chlorine (after contact tank)	2,4	N/A		N/A		1.5 mg/L	N/A	1/D	Grab
Total Residual Chlorine (after dechlorination)	3	0.008 mg/L		0.010 mg/L		N/A	N/A	1/D	Grab

The basis for the limitations codes are:

- | | | |
|----------------------------------|---|---|
| 1. Federal Effluent Requirements | <i>MGD</i> = Million gallons per day. | <i>1/D</i> = Once every day. |
| 2. Best Professional Judgement | <i>N/A</i> = Not applicable. | <i>2/M</i> = Twice every month, > 7 days apart. |
| 3. Water Quality Standards | <i>NL</i> = No limit; monitor and report. | <i>1/M</i> = Once every month. |
| 4. DEQ Disinfection Guidance | <i>S.U.</i> = Standard units. | |

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

* The permittee shall submit *E. coli* results for one year at the 0.0063 MGD design flow or until issuance of the CTO for the 0.01175 MGD facility.If all sampling results for *E. coli* do not exceed 126 n/100mL, reported as the geometric mean, the permittee may submit a written request to DEQ-NRO for a reduction in the sampling frequency to once per quarter.

Upon approval, the permittee shall collect two (2) samples, greater than seven (7) days apart, during one month within each quarterly monitoring period as defined below. The results shall be reported as the geometric mean.

The quarterly monitoring periods shall be January through March, April through June, July through September and October through December.

The DMR shall be submitted no later than the 10th day of the month following the monitoring period.

19b. Effluent Limitations/Monitoring Requirements:

Design flow is 0.01175 MGD.

Effective Dates: During the period beginning with the issuance of the CTO for the 0.01175 MGD facility and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS						MONITORING REQUIREMENTS	
		<u>Monthly Average</u>		<u>Weekly Average</u>		<u>Minimum</u>	<u>Maximum</u>	<u>Frequency</u>	<u>Sample Type</u>
Flow (MGD)	NA	NL		N/A		N/A	NL	1/D	ESTIMATE
pH	3	N/A		N/A		6.0 S.U.	9.0 S.U.	1/D	Grab
BOD ₅	3	24 mg/L	1.1 kg/day	36 mg/L	1.6 kg/day	N/A	N/A	1/M	Grab
Total Suspended Solids (TSS)	2	24 mg/L	1.1 kg/day	36 mg/L	1.6 kg/day	N/A	N/A	1/M	Grab
DO	3	N/A		N/A		6.0 mg/L	N/A	1/D	Grab
Ammonia, as N (mg/L)	3	2.0 mg/L		2.0 mg/L		N/A	N/A	1/M	Grab
<i>E. coli</i> (Geometric Mean)	2,3	126 n/100mL		N/A		N/A	N/A	2/M*	Grab
Total Residual Chlorine (after contact tank)	2,4	N/A		N/A		1.5 mg/L	N/A	1/D	Grab
Total Residual Chlorine (after dechlorination)	3	0.008 mg/L		0.010 mg/L		N/A	N/A	1/D	Grab

The basis for the limitations codes are:

- | | | |
|----------------------------------|---|---|
| 1. Federal Effluent Requirements | <i>MGD</i> = Million gallons per day. | <i>1/D</i> = Once every day. |
| 2. Best Professional Judgement | <i>N/A</i> = Not applicable. | <i>2/M</i> = Twice every month, > 7 days apart. |
| 3. Water Quality Standards | <i>NL</i> = No limit; monitor and report. | <i>1/M</i> = Once every month. |
| 4. DEQ Disinfection Guidance | <i>S.U.</i> = Standard units. | |

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

* The permittee shall submit *E. coli* results for one year following issuance of the CTO for the 0.01175 MGD facility.If all sampling results for *E. coli* do not exceed 126 n/100mL, reported as the geometric mean, the permittee may submit a written request to DEQ-NRO for a reduction in the sampling frequency to once per quarter.

Upon approval, the permittee shall collect two (2) samples, greater than seven (7) days apart, during one month within each quarterly monitoring period as defined below. The results shall be reported as the geometric mean.

The quarterly monitoring periods shall be January through March, April through June, July through September and October through December.

The DMR shall be submitted no later than the 10th day of the month following the monitoring period.

20. Other Permit Requirements:

Part I.B. of the permit contains additional chlorine monitoring requirements, quantification levels and compliance reporting instructions.

Minimum chlorine residual must be maintained at the exit of the chlorine contact tank to assure adequate disinfection. No more than three (3) of the monthly test results for TRC at the exit of the chlorine contact tank shall be < 1.5 mg/L with any TRC < 0.6 mg/L considered a system failure.

9 VAC 25-31-190.L.4.c. requires an arithmetic mean for measurement averaging and 9 VAC 25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Specific analytical methodologies for toxics are listed in this permit section as well as quantification levels (QLs) necessary to demonstrate compliance with applicable permit limitations or for use in future evaluations to determine if the pollutant has reasonable potential to cause or contribute to a violation. Required averaging methodologies are also specified.

21. Other Special Conditions:

- a) 95% Capacity Reopener. The VPDES Permit Regulation at 9 VAC 25-31-200.B.2. requires all POTWs and PVOTWs develop and submit a plan of action to DEQ when the monthly average influent flow to their sewage treatment plant reaches 95% or more of the design capacity authorized in the permit for each month of any three consecutive month period. This facility is a POTW.
- b) Indirect Dischargers. Required by VPDES Permit Regulation, 9 VAC 25-31-280.B.9 for POTWs and PVOTWs that receive waste from someone other than the owner of the treatment works.
- c) O&M Manual Requirement. Required by Code of Virginia §62.1-44.19; Sewage Collection and Treatment Regulations, 9 VAC 25-790; VPDES Permit Regulation, 9 VAC 25-31-190.E. Before or on 5 April 2009, the permittee shall submit for approval an Operations and Maintenance (O&M) Manual or a statement confirming the accuracy and completeness of the current O&M Manual to the Department of Environmental Quality, Northern Regional Office (DEQ-NRO). Future changes to the facility must be addressed by the submittal of a revised O&M Manual within 90 days of the changes. Non-compliance with the O&M Manual shall be deemed a violation of the permit.
- d) CTC, CTO Requirement. The Code of Virginia § 62.1-44.19; Sewage Collection and Treatment Regulations, 9 VAC 25-790 requires that all treatment works treating wastewater obtain a Certificate to Construct prior to commencing construction and to obtain a Certificate to Operate prior to commencing operation of the treatment works.
- e) Licensed Operator Requirement. The Code of Virginia at §54.1-2300 et seq. and the VPDES Permit Regulation at 9 VAC 25-31-200.D, and Rules and Regulations for Waterworks and Wastewater Works Operators (18 VAC 160-20-10 et seq.) requires licensure of operators. This facility requires a Class IV operator.
- f) Reliability Class. The Sewage Collection and Treatment Regulation at 9 VAC 25-790 requires sewerage works achieve a certain level of reliability in order to protect water quality and public health consequences in the event of component or system failure. The facility is required to meet reliability Class of II.
- g) Sludge Reopener. The VPDES Permit Regulation at 9 VAC 25-31-200.C.4. requires all permits issued to treatment works treating domestic sewage (including sludge-only facilities) include a reopener clause allowing incorporation of any applicable standard for sewage sludge use or disposal promulgated under Section 405(d) of the CWA. The facility includes a sewage treatment works.
- h) Sludge Use and Disposal. The VPDES Permit Regulation at 9 VAC 25-31-100.P., 220.B.2., and 420-720, and 40 CFR Part 503 require all treatment works treating domestic sewage to submit information on their sludge use and disposal practices and to meet specified standards for sludge use and disposal. The facility includes a treatment works treating domestic sewage.

22. Permit Section Part II: Part II of the permit contains standard conditions that appear in all VPDES Permits. In general, these standard conditions address the responsibilities of the permittee, reporting requirements, testing procedures and records retention.

23. Changes to the Permit from the Previously Issued Permit:

- a) Special Conditions:
 - The CTC, CTO Requirement was included with this reissuance.
 - The Sludge Reopener was added.
 - The Sludge Use and Disposal was included.

b) Monitoring and Effluent Limitations:

-The Chlorine Demonstration was removed with this reissuance.

-*E. coli* limitations were included per current agency guidance.

c) Other:

-Flow tier of 0.01175 MGD was included.

24. Variances/Alternate Limits or Conditions: None**25. Public Notice Information:**

First Public Notice Date: 12 November 2008

Second Public Notice Date: 19 November 2008

Public Notice Information is required by 9 VAC 25-31-280.B. All pertinent information is on file and may be inspected and copied by contacting the: DEQ Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193, Telephone No. (703) 583-3873, ddfrasier@deq.virginia.gov. See **Attachment 9** for a copy of the public notice document.

Persons may comment in writing or by email to the DEQ on the proposed permit action, and may request a public hearing, during the comment period. Comments shall include the name, address, and telephone number of the writer and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requester's interests would be directly and adversely affected by the proposed permit action. Following the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given.

26. 303 (d) Listed Stream Segments and Total Max. Daily Loads (TMDL):

The Limestone Branch Bacteria TMDL was developed and later approved by the U.S. EPA on 6 July 2004. The facility received a Wasteload Allocation (WLA) of 1.10×10^{10} cfu/year for *E. coli* for the 0.0063 MGD facility. The TMDL did include a growth factor to account for future expansions of point sources. At the 0.01175 MGD flow, the facility receives a WLA of 2.05×10^{10} cfu/year for *E. coli*. The proposed bacteria limitations should not contribute to the further impairment downstream of this discharge.

TMDL Reopener: This special condition is to allow the permit to be reopened if necessary to bring it into compliance with any applicable TMDL that may be developed and approved for the receiving stream.

27. Additional Comments:

Previous Board Action(s): None.

Staff Comments: None.

Public Comment: No comments were received during the public notice.

EPA Checklist: The checklist can be found in **Attachment 10**.

Fact Sheet Attachments

Table of Contents

Lucketts Elementary School
VA0021750
2009 Reissuance

Attachment 1	Flow Frequency Determination
Attachment 2	Facility Schematic/Diagram
Attachment 3	Topographic Map
Attachment 4	Inspection Summary Report
Attachment 5	Wasteload Allocation Analyses
Attachment 6	Effluent Data Summary
Attachment 7	Ammonia Limitation Derivation
Attachment 8	Total Residual Chlorine Limitation Derivation
Attachment 9	Public Notice
Attachment 10	EPA Checklist

MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY - WATER DIVISION
Water Quality Assessments and Planning
629 E. Main Street P.O. Box 10009 Richmond, Virginia 23240

SUBJECT: Flow Frequency Determination
Luckettes Elementary School STP - #VA0021750

TO: James C. Engbert, NRO

FROM: Paul E. Herman, P.E., WQAP

DATE: June 22, 1998

COPIES: Ron Gregory, Charles Martin, File

RECEIVED
JUN 24 1998

Northern VA. Region
Dept. of Env. Quality

This memo supercedes my June 15, 1993 memo to Joan Crowther Concerning the subject VPDES permit.

The Luckettes Elementary School STP discharges to an unnamed tributary of Limestone Branch near Luckettes, VA. Stream flow frequencies are required at this site by the permit writer for the purpose of calculating effluent limitations for the VPDES permit.

The values at the discharge point were determined by inspection of the USGS Waterford Quadrangle topographical map which shows the receiving stream as intermittent at the discharge point. The flow frequencies for intermittent streams are 0.0 cfs for the 1Q10, 7Q10, 30Q5, high flow 1Q10, high flow 7Q10, and the harmonic mean. The drainage area above the discharge point is 0.14 mi². For modeling purposes, flow frequencies have been determined for the first perennial reach downstream of the outfall. This occurs on the same unnamed tributary approximately 2000 feet downstream of the outfall.

The USGS conducted several flow measurements on a this unnamed tributary to Limestone Branch from 1979-1980. The measurements were made approximately 3.0 miles downstream of the discharge point at the Route 661 bridge. The measurements made by the USGS correlated very well with the same day daily mean values from the continuous record gage on Catoctin Creek near Taylorstown, VA #01638480. The measurements and daily mean values were plotted on a logarithmic graph and a best fit line was drawn through the data points. The required flow frequencies from the reference gage were plotted on the regression line and the associated flow frequencies at the measurement site were determined from the graph.

The flow frequencies at the discharge point were determined by using the values at the measurement site and adjusting them by proportional drainage areas. The data for the reference gage, the measurement site and the discharge point are presented below:

Attachment 1

Catoctin Creek at Taylorstown, VA (#01638480):

Drainage Area = 89.6 mi ²		
1Q10 = 0.8 cfs	High Flow 1Q10 =	4.6 cfs
7Q10 = 1.1 cfs	High Flow 7Q10 =	6.5 cfs
30Q5 = 3.8 cfs	HM =	18 cfs

UT to Limestone Branch at measurement site (#01643600):

Drainage Area = 6.82 mi ²		
1Q10 = 0.22 cfs	High Flow 1Q10 =	0.72 cfs
7Q10 = 0.28 cfs	High Flow 7Q10 =	0.90 cfs
30Q5 = 0.63 cfs	HM =	1.8 cfs

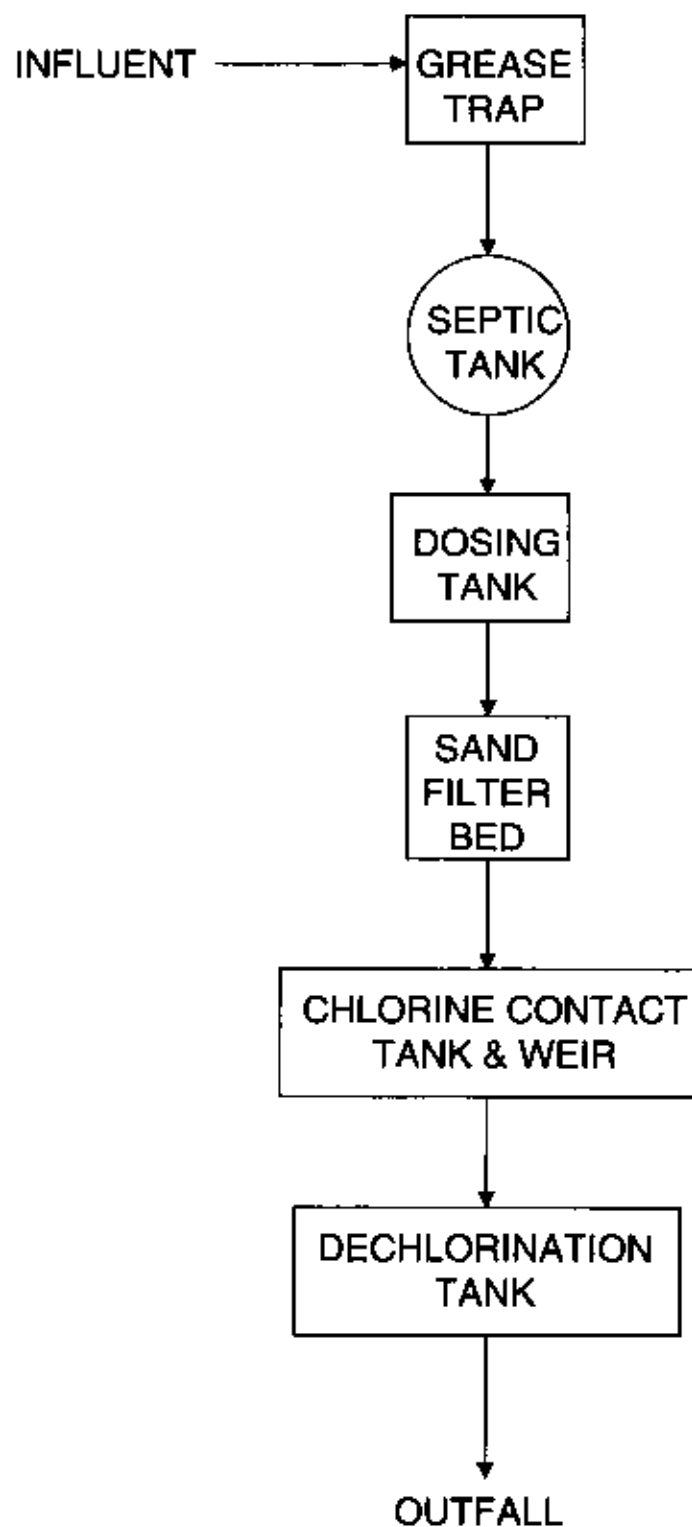
UT to Limestone Branch at perennial point:

Drainage Area = 0.86 mi ²		
1Q10 = 0.028 cfs	High Flow 1Q10 =	0.091 cfs
7Q10 = 0.035 cfs	High Flow 7Q10 =	0.11 cfs
30Q5 = 0.079 cfs	HM =	0.23 cfs

This analysis assumes there are no significant discharges, withdrawals or springs influencing the flow in unnamed tributary to Limestone Branch above the perennial point.

If there are any questions concerning this analysis, please let me know.

LUCKETTS ELEMENTARY FLOW SCHEME





Bury+Partners
 ENGINEERING SOLUTIONS
 4095 Ironbound Road, Suite 200
 Williamsburg, Virginia 23188
 Tel. (757) 229-1776 Fax (757) 229-4683
 Bury+Partners, Inc. ©Copyright 2006

**LUCKETTS ELEMENTARY SCHOOL
 VPDES PERMIT APPLICATION**

**VICINITY MAP
 QUAD MAP: WATERFORD, VA MD**

PROJ. NO: 20277-0004
 DWG: Vicinity Map.dwg
 DATE: 4/15/08
 SCALE: 1"=2,000'
 SHEET: SECTION II

October 30, 2003

MEMORANDUM

TO: Lucketts Elementary School STP (VA0021750) Permit File

FROM: Matt Ellinghaus, Water Permit Writer

SUBJECT: Lucketts Elementary School STP (VA0021750) Reissuance Site Inspection

This memo documents the observations and findings from the Lucketts Elementary School STP site inspection conducted on October 28, 2003 for the reissuance of VPDES permit number VA0021750. Present for the inspection was Tommy Fields, operator, Amy Taylor, DEQ Water Permitting, and Matt Ellinghaus, DEQ Water Permitting.

The Lucketts Elementary School serves approximately 200 students, faculty, and staff. All wastewater flows through a septic tank prior to the dosing chamber. From there it is treated through a rotating arm sand filter, disinfected by way of a chlorine bleach solution, and dechlorinated with a tablet feed system prior to discharge.

The sand filter was fully operational and the sand was clean with a normal distribution pattern. Chlorination is accomplished in a 10 foot deep wet well located in the lab / control building. Household bleach is mixed 1:1 in a 40 gallon barrel with post dechlor water. The solution is drip fed and the dosing pump operates for one minute out of every 10 minutes. A 30 minute detention time is accomplished by a baffled well located adjacent to the control building. Dechlorination is done with a four tube tablet feeder with only one tube needed for complete dechlorination.

The final effluent flows through an underground pipe and travels approximately 150 – 200 yards prior to discharging by way of a concrete headwall. Effluent flows along a concrete trench for a short stretch before entering the unnamed tributary to Limestone Branch. The water in the trench was stagnant because the STP was not currently discharging during the inspection. Water from the UT typically backs up the trench to the headwall during wet weather when the facility is not discharging. There were no observed adverse impacts to the receiving stream from this discharge.

Please see photos for additional information and descriptions.

Lucketts Elementary School
VA0021750

TECHNICAL INSPECTION SUMMARY

Problems identified at last inspection on 12 June 1998: **Updates relative to current inspection in Bold Type.**

- The distribution arms were not level at the inspection. The operator stated that the contractor was planning to work on the distribution arms after the septic tank was pumped on June 22, 1998. **Distribution arms were currently level.**
- The condition of the sand under the arms indicated that the flow being pumped through the distribution system was not strong enough to rotate the distribution arms. The position of the arms should be monitored and manually moved periodically to prevent possible problems in the sand filter. **At time of the inspection, condition of the sand was good. No indications of distribution problems, no solids on surface and no vegetative growth.**
- The facility is required to keep the outfall area accessible to personnel. The facility should locate the outfall and maintain a path to the location. **Due to the extreme wet conditions, accessing the outfall was not reasonable. Operator did state that it is accessible during dryer periods.**

Comments/Recommendations for action from current inspection 24 March 2004:

- **None at this time.**

FRESHWATER WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: **Lucketts Elementary School**

Permit No.: **VA0021750**

Receiving Stream: **Limestone Branch, UT**

Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information

Mean Hardness (as CaCO3) = **150** mg/L
 90% Temperature (Annual) = **25** deg C
 90% Temperature (Wet season) = **25** deg C
 90% Maximum pH = **7** SU
 10% Maximum pH = **7** SU
 Tier Designation (1 or 2) = **1**
 Public Water Supply (PWS) Y/N? = **y**
 Trout Present Y/N? = **n**
 Early Life Stages Present Y/N? = **y**

Stream Flows

1Q10 (Annual) = **0** MGD
 7Q10 (Annual) = **0** MGD
 30Q10 (Annual) = **0** MGD
 1Q10 (Wet season) = **0** MGD
 30Q10 (Wet season) = **0** MGD
 30Q5 = **0** MGD
 Harmonic Mean = **0** MGD
 Annual Average = **0** MGD

Mixing Information

Annual - 1Q10 Mix = **0** %
 - 7Q10 Mix = **0** %
 - 30Q10 Mix = **0** %
 Wet Season - 1Q10 Mix = **0** %
 - 30Q10 Mix = **0** %

Effluent Information

Mean Hardness (as CaCO3) = **150** mg/L
 90% Temp (Annual) = **25** deg C
 90% Temp (Wet season) = **25** deg C
 90% Maximum pH = **7** SU
 10% Maximum pH = **7** SU
 Discharge Flow = **0.0063** MGD

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Acenaphthene	0	--	--	1.2E+03	2.7E+03	--	--	1.2E+03	2.7E+03	--	--	--	--	--	--	--	--	--	--	1.2E+03	2.7E+03
Acrolein	0	--	--	3.2E+02	7.8E+02	--	--	3.2E+02	7.8E+02	--	--	--	--	--	--	--	--	--	--	3.2E+02	7.8E+02
Acrylonitrile ^C	0	--	--	5.9E-01	6.6E+00	--	--	5.9E-01	6.6E+00	--	--	--	--	--	--	--	--	--	--	5.9E-01	6.6E+00
Aldrin ^C	0	3.0E+00	--	1.3E-03	1.4E-03	3.0E+00	--	1.3E-03	1.4E-03	--	--	--	--	--	--	--	--	3.0E+00	--	1.3E-03	1.4E-03
Ammonia-N (mg/l) (Yearly)	0	3.61E+01	3.01E+00	--	--	3.6E+01	3.0E+00	--	--	--	--	--	--	--	--	--	--	3.6E+01	3.0E+00	--	--
Ammonia-N (mg/l) (High Flow)	0	3.61E+01	5.91E+00	--	--	3.6E+01	5.9E+00	--	--	--	--	--	--	--	--	--	--	3.6E+01	5.9E+00	--	--
Anthracene	0	--	--	9.6E+03	1.1E+05	--	--	9.6E+03	1.1E+05	--	--	--	--	--	--	--	--	--	--	9.6E+03	1.1E+05
Antimony	0	--	--	1.4E+01	4.3E+03	--	--	1.4E+01	4.3E+03	--	--	--	--	--	--	--	--	--	--	1.4E+01	4.3E+03
Arsenic	0	3.4E+02	1.5E+02	1.0E+01	--	3.4E+02	1.5E+02	1.0E+01	--	--	--	--	--	--	--	--	--	3.4E+02	1.5E+02	1.0E+01	--
Barium	0	--	--	2.0E+03	--	--	--	2.0E+03	--	--	--	--	--	--	--	--	--	--	--	2.0E+03	--
Benzene ^C	0	--	--	1.2E+01	7.1E+02	--	--	1.2E+01	7.1E+02	--	--	--	--	--	--	--	--	--	--	1.2E+01	7.1E+02
Benzidine ^C	0	--	--	1.2E-03	5.4E-03	--	--	1.2E-03	5.4E-03	--	--	--	--	--	--	--	--	--	--	1.2E-03	5.4E-03
Benzo (a) anthracene ^C	0	--	--	4.4E-02	4.9E-01	--	--	4.4E-02	4.9E-01	--	--	--	--	--	--	--	--	--	--	4.4E-02	4.9E-01
Benzo (b) fluoranthene ^C	0	--	--	4.4E-02	4.9E-01	--	--	4.4E-02	4.9E-01	--	--	--	--	--	--	--	--	--	--	4.4E-02	4.9E-01
Benzo (k) fluoranthene ^C	0	--	--	4.4E-02	4.9E-01	--	--	4.4E-02	4.9E-01	--	--	--	--	--	--	--	--	--	--	4.4E-02	4.9E-01
Benzo (a) pyrene ^C	0	--	--	4.4E-02	4.9E-01	--	--	4.4E-02	4.9E-01	--	--	--	--	--	--	--	--	--	--	4.4E-02	4.9E-01
Bis(2-Chloroethyl) Ether	0	--	--	3.1E-01	1.4E+01	--	--	3.1E-01	1.4E+01	--	--	--	--	--	--	--	--	--	--	3.1E-01	1.4E+01
Bis(2-Chloroisopropyl) Ether	0	--	--	1.4E+03	1.7E+05	--	--	1.4E+03	1.7E+05	--	--	--	--	--	--	--	--	--	--	1.4E+03	1.7E+05
Bromoform ^C	0	--	--	4.4E+01	3.6E+03	--	--	4.4E+01	3.6E+03	--	--	--	--	--	--	--	--	--	--	4.4E+01	3.6E+03
Butylbenzylphthalate	0	--	--	3.0E+03	5.2E+03	--	--	3.0E+03	5.2E+03	--	--	--	--	--	--	--	--	--	--	3.0E+03	5.2E+03
Cadmium	0	6.2E+00	1.6E+00	5.0E+00	--	6.2E+00	1.6E+00	5.0E+00	--	--	--	--	--	--	--	--	--	6.2E+00	1.6E+00	5.0E+00	--
Carbon Tetrachloride ^C	0	--	--	2.5E+00	4.4E+01	--	--	2.5E+00	4.4E+01	--	--	--	--	--	--	--	--	--	--	2.5E+00	4.4E+01
Chlordane ^C	0	2.4E+00	4.3E-03	2.1E-02	2.2E-02	2.4E+00	4.3E-03	2.1E-02	2.2E-02	--	--	--	--	--	--	--	--	2.4E+00	4.3E-03	2.1E-02	2.2E-02
Chloride	0	8.6E+05	2.3E+05	2.5E+05	--	8.6E+05	2.3E+05	2.5E+05	--	--	--	--	--	--	--	--	--	8.6E+05	2.3E+05	2.5E+05	--
TRC	0	1.9E+01	1.1E+01	--	--	1.9E+01	1.1E+01	--	--	--	--	--	--	--	--	--	--	1.9E+01	1.1E+01	--	--
Chlorobenzene	0	--	--	6.8E+02	2.1E+04	--	--	6.8E+02	2.1E+04	--	--	--	--	--	--	--	--	--	--	6.8E+02	2.1E+04

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane ^C	0	--	--	4.1E+00	3.4E+02	--	--	4.1E+00	3.4E+02	--	--	--	--	--	--	--	--	--	--	4.1E+00	3.4E+02
Chloroform ^C	0	--	--	3.5E+02	2.9E+04	--	--	3.5E+02	2.9E+04	--	--	--	--	--	--	--	--	--	--	3.5E+02	2.9E+04
2-Chloronaphthalene	0	--	--	1.7E+03	4.3E+03	--	--	1.7E+03	4.3E+03	--	--	--	--	--	--	--	--	--	--	1.7E+03	4.3E+03
2-Chlorophenol	0	--	--	1.2E+02	4.0E+02	--	--	1.2E+02	4.0E+02	--	--	--	--	--	--	--	--	--	--	1.2E+02	4.0E+02
Chlorpyrifos	0	8.3E-02	4.1E-02	--	--	8.3E-02	4.1E-02	--	--	--	--	--	--	--	--	--	--	8.3E-02	4.1E-02	--	--
Chromium III	0	7.9E+02	1.0E+02	--	--	7.9E+02	1.0E+02	--	--	--	--	--	--	--	--	--	--	7.9E+02	1.0E+02	--	--
Chromium VI	0	1.6E+01	1.1E+01	--	--	1.6E+01	1.1E+01	--	--	--	--	--	--	--	--	--	--	1.6E+01	1.1E+01	--	--
Chromium, Total	0	--	--	1.0E+02	--	--	--	1.0E+02	--	--	--	--	--	--	--	--	--	--	--	1.0E+02	--
Chrysene ^C	0	--	--	4.4E-02	4.9E-01	--	--	4.4E-02	4.9E-01	--	--	--	--	--	--	--	--	--	--	4.4E-02	4.9E-01
Copper	0	2.0E+01	1.3E+01	1.3E+03	--	2.0E+01	1.3E+01	1.3E+03	--	--	--	--	--	--	--	--	--	2.0E+01	1.3E+01	1.3E+03	--
Cyanide	0	2.2E+01	5.2E+00	7.0E+02	2.2E+05	2.2E+01	5.2E+00	7.0E+02	2.2E+05	--	--	--	--	--	--	--	--	2.2E+01	5.2E+00	7.0E+02	2.2E+05
DDD ^C	0	--	--	8.3E-03	8.4E-03	--	--	8.3E-03	8.4E-03	--	--	--	--	--	--	--	--	--	--	8.3E-03	8.4E-03
DDE ^C	0	--	--	5.9E-03	5.9E-03	--	--	5.9E-03	5.9E-03	--	--	--	--	--	--	--	--	--	--	5.9E-03	5.9E-03
DDT ^C	0	1.1E+00	1.0E-03	5.9E-03	5.9E-03	1.1E+00	1.0E-03	5.9E-03	5.9E-03	--	--	--	--	--	--	--	--	1.1E+00	1.0E-03	5.9E-03	5.9E-03
Demeton	0	--	1.0E-01	--	--	--	1.0E-01	--	--	--	--	--	--	--	--	--	--	--	1.0E-01	--	--
Dibenz(a,h)anthracene ^C	0	--	--	4.4E-02	4.9E-01	--	--	4.4E-02	4.9E-01	--	--	--	--	--	--	--	--	--	--	4.4E-02	4.9E-01
Dibutyl phthalate	0	--	--	2.7E+03	1.2E+04	--	--	2.7E+03	1.2E+04	--	--	--	--	--	--	--	--	--	--	2.7E+03	1.2E+04
Dichloromethane (Methylene Chloride) ^C	0	--	--	4.7E+01	1.6E+04	--	--	4.7E+01	1.6E+04	--	--	--	--	--	--	--	--	--	--	4.7E+01	1.6E+04
1,2-Dichlorobenzene	0	--	--	2.7E+03	1.7E+04	--	--	2.7E+03	1.7E+04	--	--	--	--	--	--	--	--	--	--	2.7E+03	1.7E+04
1,3-Dichlorobenzene	0	--	--	4.0E+02	2.6E+03	--	--	4.0E+02	2.6E+03	--	--	--	--	--	--	--	--	--	--	4.0E+02	2.6E+03
1,4-Dichlorobenzene	0	--	--	4.0E+02	2.6E+03	--	--	4.0E+02	2.6E+03	--	--	--	--	--	--	--	--	--	--	4.0E+02	2.6E+03
3,3-Dichlorobenzidine ^C	0	--	--	4.0E-01	7.7E-01	--	--	4.0E-01	7.7E-01	--	--	--	--	--	--	--	--	--	--	4.0E-01	7.7E-01
Dichlorobromomethane ^C	0	--	--	5.6E+00	4.6E+02	--	--	5.6E+00	4.6E+02	--	--	--	--	--	--	--	--	--	--	5.6E+00	4.6E+02
1,2-Dichloroethane ^C	0	--	--	3.8E+00	9.9E+02	--	--	3.8E+00	9.9E+02	--	--	--	--	--	--	--	--	--	--	3.8E+00	9.9E+02
1,1-Dichloroethylene	0	--	--	3.1E+02	1.7E+04	--	--	3.1E+02	1.7E+04	--	--	--	--	--	--	--	--	--	--	3.1E+02	1.7E+04
1,2-trans-dichloroethylene	0	--	--	7.0E+02	1.4E+05	--	--	7.0E+02	1.4E+05	--	--	--	--	--	--	--	--	--	--	7.0E+02	1.4E+05
2,4-Dichlorophenol	0	--	--	9.3E+01	7.9E+02	--	--	9.3E+01	7.9E+02	--	--	--	--	--	--	--	--	--	--	9.3E+01	7.9E+02
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	1.0E+02	--	--	--	1.0E+02	--	--	--	--	--	--	--	--	--	--	--	1.0E+02	--
1,2-Dichloropropane ^C	0	--	--	5.2E+00	3.9E+02	--	--	5.2E+00	3.9E+02	--	--	--	--	--	--	--	--	--	--	5.2E+00	3.9E+02
1,3-Dichloropropene	0	--	--	1.0E+01	1.7E+03	--	--	1.0E+01	1.7E+03	--	--	--	--	--	--	--	--	--	--	1.0E+01	1.7E+03
Dieldrin ^C	0	2.4E-01	5.6E-02	1.4E-03	1.4E-03	2.4E-01	5.6E-02	1.4E-03	1.4E-03	--	--	--	--	--	--	--	--	2.4E-01	5.6E-02	1.4E-03	1.4E-03
Diethyl Phthalate	0	--	--	2.3E+04	1.2E+05	--	--	2.3E+04	1.2E+05	--	--	--	--	--	--	--	--	--	--	2.3E+04	1.2E+05
Di-2-Ethylhexyl Phthalate ^C	0	--	--	1.8E+01	5.9E+01	--	--	1.8E+01	5.9E+01	--	--	--	--	--	--	--	--	--	--	1.8E+01	5.9E+01
2,4-Dimethylphenol	0	--	--	5.4E+02	2.3E+03	--	--	5.4E+02	2.3E+03	--	--	--	--	--	--	--	--	--	--	5.4E+02	2.3E+03
Dimethyl Phthalate	0	--	--	3.1E+05	2.9E+06	--	--	3.1E+05	2.9E+06	--	--	--	--	--	--	--	--	--	--	3.1E+05	2.9E+06
Di-n-Butyl Phthalate	0	--	--	2.7E+03	1.2E+04	--	--	2.7E+03	1.2E+04	--	--	--	--	--	--	--	--	--	--	2.7E+03	1.2E+04
2,4 Dinitrophenol	0	--	--	7.0E+01	1.4E+04	--	--	7.0E+01	1.4E+04	--	--	--	--	--	--	--	--	--	--	7.0E+01	1.4E+04
2-Methyl-4,6-Dinitrophenol	0	--	--	1.3E+01	7.65E+02	--	--	1.3E+01	7.7E+02	--	--	--	--	--	--	--	--	--	--	1.3E+01	7.7E+02
2,4-Dinitrotoluene ^C	0	--	--	1.1E+00	9.1E+01	--	--	1.1E+00	9.1E+01	--	--	--	--	--	--	--	--	--	--	1.1E+00	9.1E+01
Dioxin (2,3,7,8- tetrachlorodibenzo-p- dioxin) (ppq)	0	--	--	1.2E-06	1.2E-06	--	--	1.2E-06	1.2E-06	--	--	--	--	--	--	--	--	--	--	1.2E-06	1.2E-06
1,2-Diphenylhydrazine ^C	0	--	--	4.0E-01	5.4E+00	--	--	4.0E-01	5.4E+00	--	--	--	--	--	--	--	--	--	--	4.0E-01	5.4E+00
Alpha-Endosulfan	0	2.2E-01	5.6E-02	1.1E+02	2.4E+02	2.2E-01	5.6E-02	1.1E+02	2.4E+02	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	1.1E+02	2.4E+02
Beta-Endosulfan	0	2.2E-01	5.6E-02	1.1E+02	2.4E+02	2.2E-01	5.6E-02	1.1E+02	2.4E+02	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	1.1E+02	2.4E+02
Endosulfan Sulfate	0	--	--	1.1E+02	2.4E+02	--	--	1.1E+02	2.4E+02	--	--	--	--	--	--	--	--	--	--	1.1E+02	2.4E+02
Endrin	0	8.6E-02	3.6E-02	7.6E-01	8.1E-01	8.6E-02	3.6E-02	7.6E-01	8.1E-01	--	--	--	--	--	--	--	--	8.6E-02	3.6E-02	7.6E-01	8.1E-01
Endrin Aldehyde	0	--	--	7.6E-01	8.1E-01	--	--	7.6E-01	8.1E-01	--	--	--	--	--	--	--	--	--	--	7.6E-01	8.1E-01

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	3.1E+03	2.9E+04	--	--	3.1E+03	2.9E+04	--	--	--	--	--	--	--	--	--	--	3.1E+03	2.9E+04
Fluoranthene	0	--	--	3.0E+02	3.7E+02	--	--	3.0E+02	3.7E+02	--	--	--	--	--	--	--	--	--	--	3.0E+02	3.7E+02
Fluorene	0	--	--	1.3E+03	1.4E+04	--	--	1.3E+03	1.4E+04	--	--	--	--	--	--	--	--	--	--	1.3E+03	1.4E+04
Foaming Agents	0	--	--	5.0E+02	--	--	--	5.0E+02	--	--	--	--	--	--	--	--	--	--	--	5.0E+02	--
Guthion	0	--	1.0E-02	--	--	--	1.0E-02	--	--	--	--	--	--	--	--	--	--	--	1.0E-02	--	--
Heptachlor ^C	0	5.2E-01	3.8E-03	2.1E-03	2.1E-03	5.2E-01	3.8E-03	2.1E-03	2.1E-03	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	2.1E-03	2.1E-03
Heptachlor Epoxide ^C	0	5.2E-01	3.8E-03	1.0E-03	1.1E-03	5.2E-01	3.8E-03	1.0E-03	1.1E-03	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	1.0E-03	1.1E-03
Hexachlorobenzene ^C	0	--	--	7.5E-03	7.7E-03	--	--	7.5E-03	7.7E-03	--	--	--	--	--	--	--	--	--	--	7.5E-03	7.7E-03
Hexachlorobutadiene ^C	0	--	--	4.4E+00	5.0E+02	--	--	4.4E+00	5.0E+02	--	--	--	--	--	--	--	--	--	--	4.4E+00	5.0E+02
Hexachlorocyclohexane																					
Alpha-BHC ^C	0	--	--	3.9E-02	1.3E-01	--	--	3.9E-02	1.3E-01	--	--	--	--	--	--	--	--	--	--	3.9E-02	1.3E-01
Hexachlorocyclohexane																					
Beta-BHC ^C	0	--	--	1.4E-01	4.6E-01	--	--	1.4E-01	4.6E-01	--	--	--	--	--	--	--	--	--	--	1.4E-01	4.6E-01
Hexachlorocyclohexane																					
Gamma-BHC ^C (Lindane)	0	9.5E-01	--	1.9E-01	6.3E-01	9.5E-01	--	1.9E-01	6.3E-01	--	--	--	--	--	--	--	--	9.5E-01	--	1.9E-01	6.3E-01
Hexachlorocyclopentadiene	0	--	--	2.4E+02	1.7E+04	--	--	2.4E+02	1.7E+04	--	--	--	--	--	--	--	--	--	--	2.4E+02	1.7E+04
Hexachloroethane ^C	0	--	--	1.9E+01	8.9E+01	--	--	1.9E+01	8.9E+01	--	--	--	--	--	--	--	--	--	--	1.9E+01	8.9E+01
Hydrogen Sulfide	0	--	2.0E+00	--	--	--	2.0E+00	--	--	--	--	--	--	--	--	--	--	--	2.0E+00	--	--
Indeno (1,2,3-cd) pyrene ^C	0	--	--	4.4E-02	4.9E-01	--	--	4.4E-02	4.9E-01	--	--	--	--	--	--	--	--	--	--	4.4E-02	4.9E-01
Iron	0	--	--	3.0E+02	--	--	--	3.0E+02	--	--	--	--	--	--	--	--	--	--	--	3.0E+02	--
Isophorone ^C	0	--	--	3.6E+02	2.6E+04	--	--	3.6E+02	2.6E+04	--	--	--	--	--	--	--	--	--	--	3.6E+02	2.6E+04
Kepone	0	--	0.0E+00	--	--	--	0.0E+00	--	--	--	--	--	--	--	--	--	--	--	0.0E+00	--	--
Lead	0	2.0E+02	2.3E+01	1.5E+01	--	2.0E+02	2.3E+01	1.5E+01	--	--	--	--	--	--	--	--	--	2.0E+02	2.3E+01	1.5E+01	--
Malathion	0	--	1.0E-01	--	--	--	1.0E-01	--	--	--	--	--	--	--	--	--	--	--	1.0E-01	--	--
Manganese	0	--	--	5.0E+01	--	--	--	5.0E+01	--	--	--	--	--	--	--	--	--	--	--	5.0E+01	--
Mercury	0	1.4E+00	7.7E-01	5.0E-02	5.1E-02	1.4E+00	7.7E-01	5.0E-02	5.1E-02	--	--	--	--	--	--	--	--	1.4E+00	7.7E-01	5.0E-02	5.1E-02
Methyl Bromide	0	--	--	4.8E+01	4.0E+03	--	--	4.8E+01	4.0E+03	--	--	--	--	--	--	--	--	--	--	4.8E+01	4.0E+03
Methoxychlor	0	--	3.0E-02	1.0E+02	--	--	3.0E-02	1.0E+02	--	--	--	--	--	--	--	--	--	--	3.0E-02	1.0E+02	--
Mirex	0	--	0.0E+00	--	--	--	0.0E+00	--	--	--	--	--	--	--	--	--	--	--	0.0E+00	--	--
Monochlorobenzene	0	--	--	6.8E+02	2.1E+04	--	--	6.8E+02	2.1E+04	--	--	--	--	--	--	--	--	--	--	6.8E+02	2.1E+04
Nickel	0	2.6E+02	2.9E+01	6.1E+02	4.6E+03	2.6E+02	2.9E+01	6.1E+02	4.6E+03	--	--	--	--	--	--	--	--	2.6E+02	2.9E+01	6.1E+02	4.6E+03
Nitrate (as N)	0	--	--	1.0E+04	--	--	--	1.0E+04	--	--	--	--	--	--	--	--	--	--	--	1.0E+04	--
Nitrobenzene	0	--	--	1.7E+01	1.9E+03	--	--	1.7E+01	1.9E+03	--	--	--	--	--	--	--	--	--	--	1.7E+01	1.9E+03
N-Nitrosodimethylamine ^C	0	--	--	6.9E-03	8.1E+01	--	--	6.9E-03	8.1E+01	--	--	--	--	--	--	--	--	--	--	6.9E-03	8.1E+01
N-Nitrosodiphenylamine ^C	0	--	--	5.0E+01	1.6E+02	--	--	5.0E+01	1.6E+02	--	--	--	--	--	--	--	--	--	--	5.0E+01	1.6E+02
N-Nitrosodi-n-propylamine ^C	0	--	--	5.0E-02	1.4E+01	--	--	5.0E-02	1.4E+01	--	--	--	--	--	--	--	--	--	--	5.0E-02	1.4E+01
Parathion	0	6.5E-02	1.3E-02	--	--	6.5E-02	1.3E-02	--	--	--	--	--	--	--	--	--	--	6.5E-02	1.3E-02	--	--
PCB-1016	0	--	1.4E-02	--	--	--	1.4E-02	--	--	--	--	--	--	--	--	--	--	--	1.4E-02	--	--
PCB-1221	0	--	1.4E-02	--	--	--	1.4E-02	--	--	--	--	--	--	--	--	--	--	--	1.4E-02	--	--
PCB-1232	0	--	1.4E-02	--	--	--	1.4E-02	--	--	--	--	--	--	--	--	--	--	--	1.4E-02	--	--
PCB-1242	0	--	1.4E-02	--	--	--	1.4E-02	--	--	--	--	--	--	--	--	--	--	--	1.4E-02	--	--
PCB-1248	0	--	1.4E-02	--	--	--	1.4E-02	--	--	--	--	--	--	--	--	--	--	--	1.4E-02	--	--
PCB-1254	0	--	1.4E-02	--	--	--	1.4E-02	--	--	--	--	--	--	--	--	--	--	--	1.4E-02	--	--
PCB-1260	0	--	1.4E-02	--	--	--	1.4E-02	--	--	--	--	--	--	--	--	--	--	--	1.4E-02	--	--
PCB Total ^C	0	--	--	1.7E-03	1.7E-03	--	--	1.7E-03	1.7E-03	--	--	--	--	--	--	--	--	--	--	1.7E-03	1.7E-03

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Pentachlorophenol ^C	0	7.7E-03	5.9E-03	2.8E+00	8.2E+01	7.7E-03	5.9E-03	2.8E+00	8.2E+01	--	--	--	--	--	--	--	--	7.7E-03	5.9E-03	2.8E+00	8.2E+01
Phenol	0	--	--	2.1E+04	4.6E+06	--	--	2.1E+04	4.6E+06	--	--	--	--	--	--	--	--	--	--	2.1E+04	4.6E+06
Pyrene	0	--	--	9.6E+02	1.1E+04	--	--	9.6E+02	1.1E+04	--	--	--	--	--	--	--	--	--	--	9.6E+02	1.1E+04
Radionuclides (pCi/l except Beta/Photon)	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Gross Alpha Activity Beta and Photon Activity (mrem/yr)	0	--	--	1.5E+01	1.5E+01	--	--	1.5E+01	1.5E+01	--	--	--	--	--	--	--	--	--	--	1.5E+01	1.5E+01
Strontium-90	0	--	--	4.0E+00	4.0E+00	--	--	4.0E+00	4.0E+00	--	--	--	--	--	--	--	--	--	--	4.0E+00	4.0E+00
Tritium	0	--	--	8.0E+00	8.0E+00	--	--	8.0E+00	8.0E+00	--	--	--	--	--	--	--	--	--	--	8.0E+00	8.0E+00
Selenium	0	--	--	2.0E+04	2.0E+04	--	--	2.0E+04	2.0E+04	--	--	--	--	--	--	--	--	--	--	2.0E+04	2.0E+04
Silver	0	2.0E+01	5.0E+00	1.7E+02	1.1E+04	2.0E+01	5.0E+00	1.7E+02	1.1E+04	--	--	--	--	--	--	--	--	2.0E+01	5.0E+00	1.7E+02	1.1E+04
Sulfate	0	6.9E+00	--	--	--	6.9E+00	--	--	--	--	--	--	--	--	--	--	--	6.9E+00	--	--	--
	0	--	--	2.5E+05	--	--	--	2.5E+05	--	--	--	--	--	--	--	--	--	--	--	2.5E+05	--
1,1,2,2-Tetrachloroethane ^C	0	--	--	1.7E+00	1.1E+02	--	--	1.7E+00	1.1E+02	--	--	--	--	--	--	--	--	--	--	1.7E+00	1.1E+02
Tetrachloroethylene ^C	0	--	--	8.0E+00	8.9E+01	--	--	8.0E+00	8.9E+01	--	--	--	--	--	--	--	--	--	--	8.0E+00	8.9E+01
Thallium	0	--	--	1.7E+00	6.3E+00	--	--	1.7E+00	6.3E+00	--	--	--	--	--	--	--	--	--	--	1.7E+00	6.3E+00
Toluene	0	--	--	6.8E+03	2.0E+05	--	--	6.8E+03	2.0E+05	--	--	--	--	--	--	--	--	--	--	6.8E+03	2.0E+05
Total dissolved solids	0	--	--	5.0E+05	--	--	--	5.0E+05	--	--	--	--	--	--	--	--	--	--	--	5.0E+05	--
Toxaphene ^C	0	7.3E-01	2.0E-04	7.3E-03	7.5E-03	7.3E-01	2.0E-04	7.3E-03	7.5E-03	--	--	--	--	--	--	--	--	7.3E-01	2.0E-04	7.3E-03	7.5E-03
Tributyltin	0	4.6E-01	6.3E-02	--	--	4.6E-01	6.3E-02	--	--	--	--	--	--	--	--	--	--	4.6E-01	6.3E-02	--	--
1,2,4-Trichlorobenzene	0	--	--	2.6E+02	9.4E+02	--	--	2.6E+02	9.4E+02	--	--	--	--	--	--	--	--	--	--	2.6E+02	9.4E+02
1,1,2-Trichloroethane ^C	0	--	--	6.0E+00	4.2E+02	--	--	6.0E+00	4.2E+02	--	--	--	--	--	--	--	--	--	--	6.0E+00	4.2E+02
Trichloroethylene ^C	0	--	--	2.7E+01	8.1E+02	--	--	2.7E+01	8.1E+02	--	--	--	--	--	--	--	--	--	--	2.7E+01	8.1E+02
2,4,6-Trichlorophenol ^C	0	--	--	2.1E+01	6.5E+01	--	--	2.1E+01	6.5E+01	--	--	--	--	--	--	--	--	--	--	2.1E+01	6.5E+01
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	5.0E+01	--	--	--	5.0E+01	--	--	--	--	--	--	--	--	--	--	--	5.0E+01	--
Vinyl Chloride ^C	0	--	--	2.3E-01	6.1E+01	--	--	2.3E-01	6.1E+01	--	--	--	--	--	--	--	--	--	--	2.3E-01	6.1E+01
Zinc	0	1.7E+02	1.7E+02	9.1E+03	6.9E+04	1.7E+02	1.7E+02	9.1E+03	6.9E+04	--	--	--	--	--	--	--	--	1.7E+02	1.7E+02	9.1E+03	6.9E+04

Notes:

- All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
- Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
- Metals measured as Dissolved, unless specified otherwise
- "C" indicates a carcinogenic parameter
- Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.
Antidegradation WLAs are based upon a complete mix.
- Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic
= (0.1(WQC - background conc.) + background conc.) for human health
- WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens, Harmonic Mean for Carcinogens, and Annual Average for Dioxin. Mixing ratios may be substituted for stream flows where appropriate.

Metal	Target Value (SSTV)
Antimony	1.4E+01
Arsenic	1.0E+01
Barium	2.0E+03
Cadmium	9.4E-01
Chromium III	6.2E+01
Chromium VI	6.4E+00
Copper	7.6E+00
Iron	3.0E+02
Lead	1.4E+01
Manganese	5.0E+01
Mercury	5.0E-02
Nickel	1.7E+01
Selenium	3.0E+00
Silver	2.8E+00
Zinc	6.6E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

FRESHWATER WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: **Lucketts Elementary School**

Permit No.: **VA0021750**

Receiving Stream: **Limestone Branch, UT**

Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information

Mean Hardness (as CaCO3) = **150** mg/L
 90% Temperature (Annual) = **25** deg C
 90% Temperature (Wet season) = **25** deg C
 90% Maximum pH = **7** SU
 10% Maximum pH = **7** SU
 Tier Designation (1 or 2) = **1**
 Public Water Supply (PWS) Y/N? = **y**
 Trout Present Y/N? = **n**
 Early Life Stages Present Y/N? = **y**

Stream Flows

1Q10 (Annual) = **0** MGD
 7Q10 (Annual) = **0** MGD
 30Q10 (Annual) = **0** MGD
 1Q10 (Wet season) = **0** MGD
 30Q10 (Wet season) = **0** MGD
 30Q5 = **0** MGD
 Harmonic Mean = **0** MGD
 Annual Average = **0** MGD

Mixing Information

Annual - 1Q10 Mix = **0** %
 - 7Q10 Mix = **0** %
 - 30Q10 Mix = **0** %
 Wet Season - 1Q10 Mix = **0** %
 - 30Q10 Mix = **0** %

Effluent Information

Mean Hardness (as CaCO3) = **150** mg/L
 90% Temp (Annual) = **25** deg C
 90% Temp (Wet season) = **25** deg C
 90% Maximum pH = **7** SU
 10% Maximum pH = **7** SU
 Discharge Flow = **0.01175** MGD

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Acenaphthene	0	--	--	1.2E+03	2.7E+03	--	--	1.2E+03	2.7E+03	--	--	--	--	--	--	--	--	--	--	1.2E+03	2.7E+03
Acrolein	0	--	--	3.2E+02	7.8E+02	--	--	3.2E+02	7.8E+02	--	--	--	--	--	--	--	--	--	--	3.2E+02	7.8E+02
Acrylonitrile ^C	0	--	--	5.9E-01	6.6E+00	--	--	5.9E-01	6.6E+00	--	--	--	--	--	--	--	--	--	--	5.9E-01	6.6E+00
Aldrin ^C	0	3.0E+00	--	1.3E-03	1.4E-03	3.0E+00	--	1.3E-03	1.4E-03	--	--	--	--	--	--	--	--	3.0E+00	--	1.3E-03	1.4E-03
Ammonia-N (mg/l) (Yearly)	0	3.61E+01	3.01E+00	--	--	3.6E+01	3.0E+00	--	--	--	--	--	--	--	--	--	--	3.6E+01	3.0E+00	--	--
Ammonia-N (mg/l) (High Flow)	0	3.61E+01	5.91E+00	--	--	3.6E+01	5.9E+00	--	--	--	--	--	--	--	--	--	--	3.6E+01	5.9E+00	--	--
Anthracene	0	--	--	9.6E+03	1.1E+05	--	--	9.6E+03	1.1E+05	--	--	--	--	--	--	--	--	--	--	9.6E+03	1.1E+05
Antimony	0	--	--	1.4E+01	4.3E+03	--	--	1.4E+01	4.3E+03	--	--	--	--	--	--	--	--	--	--	1.4E+01	4.3E+03
Arsenic	0	3.4E+02	1.5E+02	1.0E+01	--	3.4E+02	1.5E+02	1.0E+01	--	--	--	--	--	--	--	--	--	3.4E+02	1.5E+02	1.0E+01	--
Barium	0	--	--	2.0E+03	--	--	--	2.0E+03	--	--	--	--	--	--	--	--	--	--	--	2.0E+03	--
Benzene ^C	0	--	--	1.2E+01	7.1E+02	--	--	1.2E+01	7.1E+02	--	--	--	--	--	--	--	--	--	--	1.2E+01	7.1E+02
Benzidine ^C	0	--	--	1.2E-03	5.4E-03	--	--	1.2E-03	5.4E-03	--	--	--	--	--	--	--	--	--	--	1.2E-03	5.4E-03
Benzo (a) anthracene ^C	0	--	--	4.4E-02	4.9E-01	--	--	4.4E-02	4.9E-01	--	--	--	--	--	--	--	--	--	--	4.4E-02	4.9E-01
Benzo (b) fluoranthene ^C	0	--	--	4.4E-02	4.9E-01	--	--	4.4E-02	4.9E-01	--	--	--	--	--	--	--	--	--	--	4.4E-02	4.9E-01
Benzo (k) fluoranthene ^C	0	--	--	4.4E-02	4.9E-01	--	--	4.4E-02	4.9E-01	--	--	--	--	--	--	--	--	--	--	4.4E-02	4.9E-01
Benzo (a) pyrene ^C	0	--	--	4.4E-02	4.9E-01	--	--	4.4E-02	4.9E-01	--	--	--	--	--	--	--	--	--	--	4.4E-02	4.9E-01
Bis(2-Chloroethyl) Ether	0	--	--	3.1E-01	1.4E+01	--	--	3.1E-01	1.4E+01	--	--	--	--	--	--	--	--	--	--	3.1E-01	1.4E+01
Bis(2-Chloroisopropyl) Ether	0	--	--	1.4E+03	1.7E+05	--	--	1.4E+03	1.7E+05	--	--	--	--	--	--	--	--	--	--	1.4E+03	1.7E+05
Bromoform ^C	0	--	--	4.4E+01	3.6E+03	--	--	4.4E+01	3.6E+03	--	--	--	--	--	--	--	--	--	--	4.4E+01	3.6E+03
Butylbenzylphthalate	0	--	--	3.0E+03	5.2E+03	--	--	3.0E+03	5.2E+03	--	--	--	--	--	--	--	--	--	--	3.0E+03	5.2E+03
Cadmium	0	6.2E+00	1.6E+00	5.0E+00	--	6.2E+00	1.6E+00	5.0E+00	--	--	--	--	--	--	--	--	--	6.2E+00	1.6E+00	5.0E+00	--
Carbon Tetrachloride ^C	0	--	--	2.5E+00	4.4E+01	--	--	2.5E+00	4.4E+01	--	--	--	--	--	--	--	--	--	--	2.5E+00	4.4E+01
Chlordane ^C	0	2.4E+00	4.3E-03	2.1E-02	2.2E-02	2.4E+00	4.3E-03	2.1E-02	2.2E-02	--	--	--	--	--	--	--	--	2.4E+00	4.3E-03	2.1E-02	2.2E-02
Chloride	0	8.6E+05	2.3E+05	2.5E+05	--	8.6E+05	2.3E+05	2.5E+05	--	--	--	--	--	--	--	--	--	8.6E+05	2.3E+05	2.5E+05	--
TRC	0	1.9E+01	1.1E+01	--	--	1.9E+01	1.1E+01	--	--	--	--	--	--	--	--	--	--	1.9E+01	1.1E+01	--	--
Chlorobenzene	0	--	--	6.8E+02	2.1E+04	--	--	6.8E+02	2.1E+04	--	--	--	--	--	--	--	--	--	--	6.8E+02	2.1E+04

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane ^C	0	--	--	4.1E+00	3.4E+02	--	--	4.1E+00	3.4E+02	--	--	--	--	--	--	--	--	--	--	4.1E+00	3.4E+02
Chloroform ^C	0	--	--	3.5E+02	2.9E+04	--	--	3.5E+02	2.9E+04	--	--	--	--	--	--	--	--	--	--	3.5E+02	2.9E+04
2-Chloronaphthalene	0	--	--	1.7E+03	4.3E+03	--	--	1.7E+03	4.3E+03	--	--	--	--	--	--	--	--	--	--	1.7E+03	4.3E+03
2-Chlorophenol	0	--	--	1.2E+02	4.0E+02	--	--	1.2E+02	4.0E+02	--	--	--	--	--	--	--	--	--	--	1.2E+02	4.0E+02
Chlorpyrifos	0	8.3E-02	4.1E-02	--	--	8.3E-02	4.1E-02	--	--	--	--	--	--	--	--	--	--	8.3E-02	4.1E-02	--	--
Chromium III	0	7.9E+02	1.0E+02	--	--	7.9E+02	1.0E+02	--	--	--	--	--	--	--	--	--	--	7.9E+02	1.0E+02	--	--
Chromium VI	0	1.6E+01	1.1E+01	--	--	1.6E+01	1.1E+01	--	--	--	--	--	--	--	--	--	--	1.6E+01	1.1E+01	--	--
Chromium, Total	0	--	--	1.0E+02	--	--	--	1.0E+02	--	--	--	--	--	--	--	--	--	--	--	1.0E+02	--
Chrysene ^C	0	--	--	4.4E-02	4.9E-01	--	--	4.4E-02	4.9E-01	--	--	--	--	--	--	--	--	--	--	4.4E-02	4.9E-01
Copper	0	2.0E+01	1.3E+01	1.3E+03	--	2.0E+01	1.3E+01	1.3E+03	--	--	--	--	--	--	--	--	--	2.0E+01	1.3E+01	1.3E+03	--
Cyanide	0	2.2E+01	5.2E+00	7.0E+02	2.2E+05	2.2E+01	5.2E+00	7.0E+02	2.2E+05	--	--	--	--	--	--	--	--	2.2E+01	5.2E+00	7.0E+02	2.2E+05
DDD ^C	0	--	--	8.3E-03	8.4E-03	--	--	8.3E-03	8.4E-03	--	--	--	--	--	--	--	--	--	--	8.3E-03	8.4E-03
DDE ^C	0	--	--	5.9E-03	5.9E-03	--	--	5.9E-03	5.9E-03	--	--	--	--	--	--	--	--	--	--	5.9E-03	5.9E-03
DDT ^C	0	1.1E+00	1.0E-03	5.9E-03	5.9E-03	1.1E+00	1.0E-03	5.9E-03	5.9E-03	--	--	--	--	--	--	--	--	1.1E+00	1.0E-03	5.9E-03	5.9E-03
Demeton	0	--	1.0E-01	--	--	--	1.0E-01	--	--	--	--	--	--	--	--	--	--	--	1.0E-01	--	--
Dibenz(a,h)anthracene ^C	0	--	--	4.4E-02	4.9E-01	--	--	4.4E-02	4.9E-01	--	--	--	--	--	--	--	--	--	--	4.4E-02	4.9E-01
Dibutyl phthalate	0	--	--	2.7E+03	1.2E+04	--	--	2.7E+03	1.2E+04	--	--	--	--	--	--	--	--	--	--	2.7E+03	1.2E+04
Dichloromethane (Methylene Chloride) ^C	0	--	--	4.7E+01	1.6E+04	--	--	4.7E+01	1.6E+04	--	--	--	--	--	--	--	--	--	--	4.7E+01	1.6E+04
1,2-Dichlorobenzene	0	--	--	2.7E+03	1.7E+04	--	--	2.7E+03	1.7E+04	--	--	--	--	--	--	--	--	--	--	2.7E+03	1.7E+04
1,3-Dichlorobenzene	0	--	--	4.0E+02	2.6E+03	--	--	4.0E+02	2.6E+03	--	--	--	--	--	--	--	--	--	--	4.0E+02	2.6E+03
1,4-Dichlorobenzene	0	--	--	4.0E+02	2.6E+03	--	--	4.0E+02	2.6E+03	--	--	--	--	--	--	--	--	--	--	4.0E+02	2.6E+03
3,3-Dichlorobenzidine ^C	0	--	--	4.0E-01	7.7E-01	--	--	4.0E-01	7.7E-01	--	--	--	--	--	--	--	--	--	--	4.0E-01	7.7E-01
Dichlorobromomethane ^C	0	--	--	5.6E+00	4.6E+02	--	--	5.6E+00	4.6E+02	--	--	--	--	--	--	--	--	--	--	5.6E+00	4.6E+02
1,2-Dichloroethane ^C	0	--	--	3.8E+00	9.9E+02	--	--	3.8E+00	9.9E+02	--	--	--	--	--	--	--	--	--	--	3.8E+00	9.9E+02
1,1-Dichloroethylene	0	--	--	3.1E+02	1.7E+04	--	--	3.1E+02	1.7E+04	--	--	--	--	--	--	--	--	--	--	3.1E+02	1.7E+04
1,2-trans-dichloroethylene	0	--	--	7.0E+02	1.4E+05	--	--	7.0E+02	1.4E+05	--	--	--	--	--	--	--	--	--	--	7.0E+02	1.4E+05
2,4-Dichlorophenol	0	--	--	9.3E+01	7.9E+02	--	--	9.3E+01	7.9E+02	--	--	--	--	--	--	--	--	--	--	9.3E+01	7.9E+02
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	1.0E+02	--	--	--	1.0E+02	--	--	--	--	--	--	--	--	--	--	--	1.0E+02	--
1,2-Dichloropropane ^C	0	--	--	5.2E+00	3.9E+02	--	--	5.2E+00	3.9E+02	--	--	--	--	--	--	--	--	--	--	5.2E+00	3.9E+02
1,3-Dichloropropene	0	--	--	1.0E+01	1.7E+03	--	--	1.0E+01	1.7E+03	--	--	--	--	--	--	--	--	--	--	1.0E+01	1.7E+03
Dieldrin ^C	0	2.4E-01	5.6E-02	1.4E-03	1.4E-03	2.4E-01	5.6E-02	1.4E-03	1.4E-03	--	--	--	--	--	--	--	--	2.4E-01	5.6E-02	1.4E-03	1.4E-03
Diethyl Phthalate	0	--	--	2.3E+04	1.2E+05	--	--	2.3E+04	1.2E+05	--	--	--	--	--	--	--	--	--	--	2.3E+04	1.2E+05
Di-2-Ethylhexyl Phthalate ^C	0	--	--	1.8E+01	5.9E+01	--	--	1.8E+01	5.9E+01	--	--	--	--	--	--	--	--	--	--	1.8E+01	5.9E+01
2,4-Dimethylphenol	0	--	--	5.4E+02	2.3E+03	--	--	5.4E+02	2.3E+03	--	--	--	--	--	--	--	--	--	--	5.4E+02	2.3E+03
Dimethyl Phthalate	0	--	--	3.1E+05	2.9E+06	--	--	3.1E+05	2.9E+06	--	--	--	--	--	--	--	--	--	--	3.1E+05	2.9E+06
Di-n-Butyl Phthalate	0	--	--	2.7E+03	1.2E+04	--	--	2.7E+03	1.2E+04	--	--	--	--	--	--	--	--	--	--	2.7E+03	1.2E+04
2,4 Dinitrophenol	0	--	--	7.0E+01	1.4E+04	--	--	7.0E+01	1.4E+04	--	--	--	--	--	--	--	--	--	--	7.0E+01	1.4E+04
2-Methyl-4,6-Dinitrophenol	0	--	--	1.3E+01	7.65E+02	--	--	1.3E+01	7.7E+02	--	--	--	--	--	--	--	--	--	--	1.3E+01	7.7E+02
2,4-Dinitrotoluene ^C	0	--	--	1.1E+00	9.1E+01	--	--	1.1E+00	9.1E+01	--	--	--	--	--	--	--	--	--	--	1.1E+00	9.1E+01
Dioxin (2,3,7,8- tetrachlorodibenzo-p- dioxin) (ppq)	0	--	--	1.2E-06	1.2E-06	--	--	1.2E-06	1.2E-06	--	--	--	--	--	--	--	--	--	--	1.2E-06	1.2E-06
1,2-Diphenylhydrazine ^C	0	--	--	4.0E-01	5.4E+00	--	--	4.0E-01	5.4E+00	--	--	--	--	--	--	--	--	--	--	4.0E-01	5.4E+00
Alpha-Endosulfan	0	2.2E-01	5.6E-02	1.1E+02	2.4E+02	2.2E-01	5.6E-02	1.1E+02	2.4E+02	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	1.1E+02	2.4E+02
Beta-Endosulfan	0	2.2E-01	5.6E-02	1.1E+02	2.4E+02	2.2E-01	5.6E-02	1.1E+02	2.4E+02	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	1.1E+02	2.4E+02
Endosulfan Sulfate	0	--	--	1.1E+02	2.4E+02	--	--	1.1E+02	2.4E+02	--	--	--	--	--	--	--	--	--	--	1.1E+02	2.4E+02
Endrin	0	8.6E-02	3.6E-02	7.6E-01	8.1E-01	8.6E-02	3.6E-02	7.6E-01	8.1E-01	--	--	--	--	--	--	--	--	8.6E-02	3.6E-02	7.6E-01	8.1E-01
Endrin Aldehyde	0	--	--	7.6E-01	8.1E-01	--	--	7.6E-01	8.1E-01	--	--	--	--	--	--	--	--	--	--	7.6E-01	8.1E-01

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	3.1E+03	2.9E+04	--	--	3.1E+03	2.9E+04	--	--	--	--	--	--	--	--	--	--	3.1E+03	2.9E+04
Fluoranthene	0	--	--	3.0E+02	3.7E+02	--	--	3.0E+02	3.7E+02	--	--	--	--	--	--	--	--	--	--	3.0E+02	3.7E+02
Fluorene	0	--	--	1.3E+03	1.4E+04	--	--	1.3E+03	1.4E+04	--	--	--	--	--	--	--	--	--	--	1.3E+03	1.4E+04
Foaming Agents	0	--	--	5.0E+02	--	--	--	5.0E+02	--	--	--	--	--	--	--	--	--	--	--	5.0E+02	--
Guthion	0	--	1.0E-02	--	--	--	1.0E-02	--	--	--	--	--	--	--	--	--	--	--	1.0E-02	--	--
Heptachlor ^C	0	5.2E-01	3.8E-03	2.1E-03	2.1E-03	5.2E-01	3.8E-03	2.1E-03	2.1E-03	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	2.1E-03	2.1E-03
Heptachlor Epoxide ^C	0	5.2E-01	3.8E-03	1.0E-03	1.1E-03	5.2E-01	3.8E-03	1.0E-03	1.1E-03	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	1.0E-03	1.1E-03
Hexachlorobenzene ^C	0	--	--	7.5E-03	7.7E-03	--	--	7.5E-03	7.7E-03	--	--	--	--	--	--	--	--	--	--	7.5E-03	7.7E-03
Hexachlorobutadiene ^C	0	--	--	4.4E+00	5.0E+02	--	--	4.4E+00	5.0E+02	--	--	--	--	--	--	--	--	--	--	4.4E+00	5.0E+02
Hexachlorocyclohexane	0	--	--	3.9E-02	1.3E-01	--	--	3.9E-02	1.3E-01	--	--	--	--	--	--	--	--	--	--	3.9E-02	1.3E-01
Alpha-BHC ^C																					
Hexachlorocyclohexane	0	--	--	1.4E-01	4.6E-01	--	--	1.4E-01	4.6E-01	--	--	--	--	--	--	--	--	--	--	1.4E-01	4.6E-01
Beta-BHC ^C																					
Hexachlorocyclohexane	0	9.5E-01	--	1.9E-01	6.3E-01	9.5E-01	--	1.9E-01	6.3E-01	--	--	--	--	--	--	--	--	9.5E-01	--	1.9E-01	6.3E-01
Gamma-BHC ^C (Lindane)																					
Hexachlorocyclopentadiene	0	--	--	2.4E+02	1.7E+04	--	--	2.4E+02	1.7E+04	--	--	--	--	--	--	--	--	--	--	2.4E+02	1.7E+04
Hexachloroethane ^C	0	--	--	1.9E+01	8.9E+01	--	--	1.9E+01	8.9E+01	--	--	--	--	--	--	--	--	--	--	1.9E+01	8.9E+01
Hydrogen Sulfide	0	--	2.0E+00	--	--	--	2.0E+00	--	--	--	--	--	--	--	--	--	--	--	2.0E+00	--	--
Indeno (1,2,3-cd) pyrene ^C	0	--	--	4.4E-02	4.9E-01	--	--	4.4E-02	4.9E-01	--	--	--	--	--	--	--	--	--	--	4.4E-02	4.9E-01
Iron	0	--	--	3.0E+02	--	--	--	3.0E+02	--	--	--	--	--	--	--	--	--	--	--	3.0E+02	--
Isophorone ^C	0	--	--	3.6E+02	2.6E+04	--	--	3.6E+02	2.6E+04	--	--	--	--	--	--	--	--	--	--	3.6E+02	2.6E+04
Kepone	0	--	0.0E+00	--	--	--	0.0E+00	--	--	--	--	--	--	--	--	--	--	--	0.0E+00	--	--
Lead	0	2.0E+02	2.3E+01	1.5E+01	--	2.0E+02	2.3E+01	1.5E+01	--	--	--	--	--	--	--	--	--	2.0E+02	2.3E+01	1.5E+01	--
Malathion	0	--	1.0E-01	--	--	--	1.0E-01	--	--	--	--	--	--	--	--	--	--	--	1.0E-01	--	--
Manganese	0	--	--	5.0E+01	--	--	--	5.0E+01	--	--	--	--	--	--	--	--	--	--	--	5.0E+01	--
Mercury	0	1.4E+00	7.7E-01	5.0E-02	5.1E-02	1.4E+00	7.7E-01	5.0E-02	5.1E-02	--	--	--	--	--	--	--	--	1.4E+00	7.7E-01	5.0E-02	5.1E-02
Methyl Bromide	0	--	--	4.8E+01	4.0E+03	--	--	4.8E+01	4.0E+03	--	--	--	--	--	--	--	--	--	--	4.8E+01	4.0E+03
Methoxychlor	0	--	3.0E-02	1.0E+02	--	--	3.0E-02	1.0E+02	--	--	--	--	--	--	--	--	--	--	3.0E-02	1.0E+02	--
Mirex	0	--	0.0E+00	--	--	--	0.0E+00	--	--	--	--	--	--	--	--	--	--	--	0.0E+00	--	--
Monochlorobenzene	0	--	--	6.8E+02	2.1E+04	--	--	6.8E+02	2.1E+04	--	--	--	--	--	--	--	--	--	--	6.8E+02	2.1E+04
Nickel	0	2.6E+02	2.9E+01	6.1E+02	4.6E+03	2.6E+02	2.9E+01	6.1E+02	4.6E+03	--	--	--	--	--	--	--	--	2.6E+02	2.9E+01	6.1E+02	4.6E+03
Nitrate (as N)	0	--	--	1.0E+04	--	--	--	1.0E+04	--	--	--	--	--	--	--	--	--	--	--	1.0E+04	--
Nitrobenzene	0	--	--	1.7E+01	1.9E+03	--	--	1.7E+01	1.9E+03	--	--	--	--	--	--	--	--	--	--	1.7E+01	1.9E+03
N-Nitrosodimethylamine ^C	0	--	--	6.9E-03	8.1E+01	--	--	6.9E-03	8.1E+01	--	--	--	--	--	--	--	--	--	--	6.9E-03	8.1E+01
N-Nitrosodiphenylamine ^C	0	--	--	5.0E+01	1.6E+02	--	--	5.0E+01	1.6E+02	--	--	--	--	--	--	--	--	--	--	5.0E+01	1.6E+02
N-Nitrosodi-n-propylamine ^C	0	--	--	5.0E-02	1.4E+01	--	--	5.0E-02	1.4E+01	--	--	--	--	--	--	--	--	--	--	5.0E-02	1.4E+01
Parathion	0	6.5E-02	1.3E-02	--	--	6.5E-02	1.3E-02	--	--	--	--	--	--	--	--	--	--	6.5E-02	1.3E-02	--	--
PCB-1016	0	--	1.4E-02	--	--	--	1.4E-02	--	--	--	--	--	--	--	--	--	--	--	1.4E-02	--	--
PCB-1221	0	--	1.4E-02	--	--	--	1.4E-02	--	--	--	--	--	--	--	--	--	--	--	1.4E-02	--	--
PCB-1232	0	--	1.4E-02	--	--	--	1.4E-02	--	--	--	--	--	--	--	--	--	--	--	1.4E-02	--	--
PCB-1242	0	--	1.4E-02	--	--	--	1.4E-02	--	--	--	--	--	--	--	--	--	--	--	1.4E-02	--	--
PCB-1248	0	--	1.4E-02	--	--	--	1.4E-02	--	--	--	--	--	--	--	--	--	--	--	1.4E-02	--	--
PCB-1254	0	--	1.4E-02	--	--	--	1.4E-02	--	--	--	--	--	--	--	--	--	--	--	1.4E-02	--	--
PCB-1260	0	--	1.4E-02	--	--	--	1.4E-02	--	--	--	--	--	--	--	--	--	--	--	1.4E-02	--	--
PCB Total ^C	0	--	--	1.7E-03	1.7E-03	--	--	1.7E-03	1.7E-03	--	--	--	--	--	--	--	--	--	--	1.7E-03	1.7E-03

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Pentachlorophenol ^C	0	7.7E-03	5.9E-03	2.8E+00	8.2E+01	7.7E-03	5.9E-03	2.8E+00	8.2E+01	--	--	--	--	--	--	--	--	7.7E-03	5.9E-03	2.8E+00	8.2E+01
Phenol	0	--	--	2.1E+04	4.6E+06	--	--	2.1E+04	4.6E+06	--	--	--	--	--	--	--	--	--	--	2.1E+04	4.6E+06
Pyrene	0	--	--	9.6E+02	1.1E+04	--	--	9.6E+02	1.1E+04	--	--	--	--	--	--	--	--	--	--	9.6E+02	1.1E+04
Radionuclides (pCi/l except Beta/Photon)	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Gross Alpha Activity Beta and Photon Activity (mrem/yr)	0	--	--	1.5E+01	1.5E+01	--	--	1.5E+01	1.5E+01	--	--	--	--	--	--	--	--	--	--	1.5E+01	1.5E+01
Strontium-90	0	--	--	4.0E+00	4.0E+00	--	--	4.0E+00	4.0E+00	--	--	--	--	--	--	--	--	--	--	4.0E+00	4.0E+00
Tritium	0	--	--	8.0E+00	8.0E+00	--	--	8.0E+00	8.0E+00	--	--	--	--	--	--	--	--	--	--	8.0E+00	8.0E+00
Selenium	0	--	--	2.0E+04	2.0E+04	--	--	2.0E+04	2.0E+04	--	--	--	--	--	--	--	--	--	--	2.0E+04	2.0E+04
Silver	0	2.0E+01	5.0E+00	1.7E+02	1.1E+04	2.0E+01	5.0E+00	1.7E+02	1.1E+04	--	--	--	--	--	--	--	--	2.0E+01	5.0E+00	1.7E+02	1.1E+04
Sulfate	0	6.9E+00	--	--	--	6.9E+00	--	--	--	--	--	--	--	--	--	--	--	6.9E+00	--	--	--
	0	--	--	2.5E+05	--	--	--	2.5E+05	--	--	--	--	--	--	--	--	--	--	--	2.5E+05	--
1,1,2,2-Tetrachloroethane ^C	0	--	--	1.7E+00	1.1E+02	--	--	1.7E+00	1.1E+02	--	--	--	--	--	--	--	--	--	--	1.7E+00	1.1E+02
Tetrachloroethylene ^C	0	--	--	8.0E+00	8.9E+01	--	--	8.0E+00	8.9E+01	--	--	--	--	--	--	--	--	--	--	8.0E+00	8.9E+01
Thallium	0	--	--	1.7E+00	6.3E+00	--	--	1.7E+00	6.3E+00	--	--	--	--	--	--	--	--	--	--	1.7E+00	6.3E+00
Toluene	0	--	--	6.8E+03	2.0E+05	--	--	6.8E+03	2.0E+05	--	--	--	--	--	--	--	--	--	--	6.8E+03	2.0E+05
Total dissolved solids	0	--	--	5.0E+05	--	--	--	5.0E+05	--	--	--	--	--	--	--	--	--	--	--	5.0E+05	--
Toxaphene ^C	0	7.3E-01	2.0E-04	7.3E-03	7.5E-03	7.3E-01	2.0E-04	7.3E-03	7.5E-03	--	--	--	--	--	--	--	--	7.3E-01	2.0E-04	7.3E-03	7.5E-03
Tributyltin	0	4.6E-01	6.3E-02	--	--	4.6E-01	6.3E-02	--	--	--	--	--	--	--	--	--	--	4.6E-01	6.3E-02	--	--
1,2,4-Trichlorobenzene	0	--	--	2.6E+02	9.4E+02	--	--	2.6E+02	9.4E+02	--	--	--	--	--	--	--	--	--	--	2.6E+02	9.4E+02
1,1,2-Trichloroethane ^C	0	--	--	6.0E+00	4.2E+02	--	--	6.0E+00	4.2E+02	--	--	--	--	--	--	--	--	--	--	6.0E+00	4.2E+02
Trichloroethylene ^C	0	--	--	2.7E+01	8.1E+02	--	--	2.7E+01	8.1E+02	--	--	--	--	--	--	--	--	--	--	2.7E+01	8.1E+02
2,4,6-Trichlorophenol ^C	0	--	--	2.1E+01	6.5E+01	--	--	2.1E+01	6.5E+01	--	--	--	--	--	--	--	--	--	--	2.1E+01	6.5E+01
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	5.0E+01	--	--	--	5.0E+01	--	--	--	--	--	--	--	--	--	--	--	5.0E+01	--
Vinyl Chloride ^C	0	--	--	2.3E-01	6.1E+01	--	--	2.3E-01	6.1E+01	--	--	--	--	--	--	--	--	--	--	2.3E-01	6.1E+01
Zinc	0	1.7E+02	1.7E+02	9.1E+03	6.9E+04	1.7E+02	1.7E+02	9.1E+03	6.9E+04	--	--	--	--	--	--	--	--	1.7E+02	1.7E+02	9.1E+03	6.9E+04

Notes:

- All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
- Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
- Metals measured as Dissolved, unless specified otherwise
- "C" indicates a carcinogenic parameter
- Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.
Antidegradation WLAs are based upon a complete mix.
- Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic
= (0.1(WQC - background conc.) + background conc.) for human health
- WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens, Harmonic Mean for Carcinogens, and Annual Average for Dioxin. Mixing ratios may be substituted for stream flows where appropriate.

Metal	Target Value (SSTV)
Antimony	1.4E+01
Arsenic	1.0E+01
Barium	2.0E+03
Cadmium	9.4E-01
Chromium III	6.2E+01
Chromium VI	6.4E+00
Copper	7.6E+00
Iron	3.0E+02
Lead	1.4E+01
Manganese	5.0E+01
Mercury	5.0E-02
Nickel	1.7E+01
Selenium	3.0E+00
Silver	2.8E+00
Zinc	6.6E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

DMR QA/QC

Permit #:VA0021750	Facility:Lucketts Elementary School
---------------------------	-------------------------------------

Rec'd	Parameter Description	QTY AVG	Lim Avg	QTY MAX	Lim Max	CONC MIN	Lim Min	CONC AVG	Lim Avg	CONC MAX	Lim Max
09-Feb-2004	AMMONIA, AS N	<.0005	*****	<.0005	*****	NULL	*****	<0.10	2	<0.10	2
05-Mar-2004	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.15	2	0.15	2
08-Apr-2004	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.56	2	0.56	2
06-May-2004	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	<0.10	2	<0.10	2
07-Jun-2004	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.14	2	0.14	2
08-Jul-2004	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.21	2	0.21	2
06-Aug-2004	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	NULL	2	NULL	2
07-Sep-2004	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	NULL	2	NULL	2
07-Oct-2004	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.25	2	0.25	2
05-Nov-2004	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.42	2	0.42	2
06-Dec-2004	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.18	2	0.18	2
05-Jan-2005	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.11	2	0.11	2
07-Feb-2005	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.13	2	0.13	2
07-Mar-2005	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	1.56	2	1.56	2
07-Apr-2005	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.28	2	0.28	2
05-May-2005	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.14	2	0.14	2
08-Jun-2005	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	<0.10	2	<0.10	2
11-Jul-2005	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	<QL	2	<QL	2
11-Aug-2005	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	NULL	2	NULL	2
07-Sep-2005	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	NULL	2	NULL	2
06-Oct-2005	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	<0.10	2	<0.10	2
09-Nov-2005	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	<0.10	2	<0.10	2
06-Dec-2005	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.12	2	0.12	2
09-Jan-2006	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.38	2	0.38	2
06-Feb-2006	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.17	2	0.17	2
06-Mar-2006	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.35	2	0.35	2
07-Apr-2006	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.13	2	0.13	2
05-May-2006	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	<0.10	2	<0.10	2
08-Jun-2006	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	<0.10	2	<0.10	2
10-Jul-2006	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.37	2	0.37	2
07-Aug-2006	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	<0.10	2	<0.10	2
08-Sep-2006	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	<0.10	2	<0.10	2
12-Oct-2006	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	1.04	2	1.04	2
08-Nov-2006	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	<0.10	2	<0.10	2
08-Dec-2006	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	1.29	2	1.29	2

Rec'd	Parameter Description	QTY AVG	Lim Avg	QTY MAX	Lim Max	CONC MIN	Lim Min	CONC AVG	Lim Avg	CONC MAX	Lim Max
09-Jan-2007	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.28	2	0.28	2
07-Feb-2007	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.45	2	0.45	2
05-Mar-2007	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.44	2	0.44	2
03-Apr-2007	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.95	2	0.95	2
04-May-2007	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	<0.10	2	<0.10	2
05-Jun-2007	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	<0.10	2	<0.10	2
02-Jul-2007	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.1	2	0.1	2
06-Aug-2007	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	NULL	2	NULL	2
05-Sep-2007	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	NULL	2	NULL	2
05-Oct-2007	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.23	2	0.23	2
05-Nov-2007	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	<0.10	2	<0.10	2
05-Dec-2007	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	0.21	2	0.21	2
07-Jan-2008	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	1.17	2	1.17	2
08-Feb-2008	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	1.28	2	2.31	2
06-Mar-2008	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	<0.10	2	<0.10	2
09-Apr-2008	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	<0.10	2	<0.10	2
09-May-2008	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	<0.10	2	<0.10	2
02-Jun-2008	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	<0.10	2	<0.10	2
07-Jul-2008	AMMONIA, AS N	NULL	*****	NULL	*****	NULL	*****	<0.10	2	<0.10	2
09-Feb-2004	BOD5	0.0454	0.6	0.0454	0.9	NULL	*****	10	24	10	36
05-Mar-2004	BOD5	0.0208	0.6	0.0208	0.9	NULL	*****	5	24	5	36
08-Apr-2004	BOD5	<.0091	0.6	<.0091	0.9	NULL	*****	<2	24	<2	36
06-May-2004	BOD5	<.0083	0.6	<.0083	0.9	NULL	*****	<2	24	<2	36
07-Jun-2004	BOD5	<.0098	0.6	<.0098	0.9	NULL	*****	<2	24	<2	36
08-Jul-2004	BOD5	0.0227	0.6	0.0227	0.9	NULL	*****	5	24	5	36
06-Aug-2004	BOD5	NULL	0.6	NULL	0.9	NULL	*****	NULL	24	NULL	36
07-Sep-2004	BOD5	NULL	0.6	NULL	0.9	NULL	*****	NULL	24	NULL	36
07-Oct-2004	BOD5	0.064	0.6	0.064	0.9	NULL	*****	13	24	13	36
05-Nov-2004	BOD5	0.0148	0.6	0.0148	0.9	NULL	*****	3	24	3	36
06-Dec-2004	BOD5	0.0125	0.6	0.0125	0.9	NULL	*****	3	24	3	36
05-Jan-2005	BOD5	0.0208	0.6	0.0208	0.9	NULL	*****	5	24	5	36
07-Feb-2005	BOD5	0.0167	0.6	0.0167	0.9	NULL	*****	4	24	4	36
07-Mar-2005	BOD5	0.0409	0.6	0.0409	0.9	NULL	*****	9	24	9	36
07-Apr-2005	BOD5	0.0182	0.6	0.0182	0.9	NULL	*****	4	24	4	36
05-May-2005	BOD5	<.0114	0.6	<.0114	0.9	NULL	*****	<2	24	<2	36
08-Jun-2005	BOD5	0.0212	0.6	0.0212	0.9	NULL	*****	4	24	4	36
11-Jul-2005	BOD5	0.0848	0.6	0.0848	0.9	NULL	*****	14	24	14	36
11-Aug-2005	BOD5	NULL	0.6	NULL	0.9	NULL	*****	NULL	24	NULL	36
07-Sep-2005	BOD5	NULL	0.6	NULL	0.9	NULL	*****	NULL	24	NULL	36

Rec'd	Parameter Description	QTY AVG	Lim Avg	QTY MAX	Lim Max	CONC MIN	Lim Min	CONC AVG	Lim Avg	CONC MAX	Lim Max
06-Oct-2005	BOD5	0.0121	0.6	0.0121	0.9	NULL	*****	2	24	2	36
09-Nov-2005	BOD5	0.0242	0.6	0.0242	0.9	NULL	*****	4	24	4	36
06-Dec-2005	BOD5	0.0341	0.6	0.0341	0.9	NULL	*****	6	24	6	36
09-Jan-2006	BOD5	0.0121	0.6	0.0121	0.9	NULL	*****	2	24	2	36
06-Feb-2006	BOD5	<.0114	0.6	<.0114	0.9	NULL	*****	<2	24	<5	36
06-Mar-2006	BOD5	0.0121	0.6	0.0121	0.9	NULL	*****	2	24	2	36
07-Apr-2006	BOD5	0.0193	0.6	0.0193	0.9	NULL	*****	3	24	3	36
05-May-2006	BOD5	<.0121	0.6	<.0121	0.9	NULL	*****	<2	24	<2	36
08-Jun-2006	BOD5	0.0545	0.6	0.0545	0.9	NULL	*****	9	24	9	36
10-Jul-2006	BOD5	0.0965	0.6	0.0965	0.9	NULL	*****	15	24	15	36
07-Aug-2006	BOD5	0.0136	0.6	0.0136	0.9	NULL	*****	3	24	3	36
08-Sep-2006	BOD5	0.0216	0.6	0.0216	0.9	NULL	*****	3	24	3	36
12-Oct-2006	BOD5	0.0643	0.6	0.0643	0.9	NULL	*****	10	24	10	36
08-Nov-2006	BOD5	>.0483	0.6	>.1930	0.9	NULL	*****	>7.5	24	>30	36
08-Dec-2006	BOD5	0.0151	0.6	0.0151	0.9	NULL	*****	2	24	2	36
09-Jan-2007	BOD5	0.0144	0.6	0.0144	0.9	NULL	*****	2	24	2	36
07-Feb-2007	BOD5	0.0204	0.6	0.0204	0.9	NULL	*****	3	24	3	36
05-Mar-2007	BOD5	0.0257	0.6	0.0257	0.9	NULL	*****	4	24	4	36
03-Apr-2007	BOD5	0.0216	0.6	0.0216	0.9	NULL	*****	3	24	3	36
04-May-2007	BOD5	0.0144	0.6	0.0144	0.9	NULL	*****	2	24	2	36
05-Jun-2007	BOD5	0.0144	0.6	0.0144	0.9	NULL	*****	2	24	2	36
02-Jul-2007	BOD5	0.053	0.6	0.053	0.9	NULL	*****	7	24	7	36
06-Aug-2007	BOD5	NULL	0.6	NULL	0.9	NULL	*****	NULL	24	NULL	36
05-Sep-2007	BOD5	NULL	0.6	NULL	0.9	NULL	*****	NULL	24	NULL	36
05-Oct-2007	BOD5	0.0454	0.6	0.0454	0.9	NULL	*****	6	24	6	36
05-Nov-2007	BOD5	0.0216	0.6	0.0216	0.9	NULL	*****	3	24	3	36
05-Dec-2007	BOD5	0.0068	0.6	0.0068	0.9	NULL	*****	2	24	2	36
07-Jan-2008	BOD5	0.0606	0.6	0.0606	0.9	NULL	*****	8	24	8	36
08-Feb-2008	BOD5	0.036	0.6	0.036	0.9	NULL	*****	5	24	5	36
06-Mar-2008	BOD5	0.0431	0.6	0.0431	0.9	NULL	*****	6	24	6	36
09-Apr-2008	BOD5	0.0341	0.6	0.0341	0.9	NULL	*****	5	24	5	36
09-May-2008	BOD5	0.0144	0.6	0.0144	0.9	NULL	*****	2	24	2	36
02-Jun-2008	BOD5	0.0238	0.6	0.0238	0.9	NULL	*****	3	24	3	36
07-Jul-2008	BOD5	<.0151	0.6	<.0151	0.9	NULL	*****	<2	24	<2	36
09-Feb-2004	TSS	0.0068	0.6	0.0068	0.9	NULL	*****	1.5	24	1.5	36
05-Mar-2004	TSS	<.0042	0.6	<.0042	0.9	NULL	*****	<1.00	24	<1.00	36
08-Apr-2004	TSS	<.0045	0.6	<.0045	0.9	NULL	*****	<1.00	24	<1.00	36
06-May-2004	TSS	<.0042	0.6	<.0042	0.9	NULL	*****	<1.00	24	<1.00	36
07-Jun-2004	TSS	<.0049	0.6	<.0049	0.9	NULL	*****	<1.00	24	<1.00	36

Rec'd	Parameter Description	QTY AVG	Lim Avg	QTY MAX	Lim Max	CONC MIN	Lim Min	CONC AVG	Lim Avg	CONC MAX	Lim Max
08-Jul-2004	TSS	0.0118	0.6	0.0118	0.9	NULL	*****	2.6	24	2.6	36
06-Aug-2004	TSS	NULL	0.6	NULL	0.9	NULL	*****	NULL	24	NULL	36
07-Sep-2004	TSS	NULL	0.6	NULL	0.9	NULL	*****	NULL	24	NULL	36
07-Oct-2004	TSS	0.0133	0.6	0.0133	0.9	NULL	*****	2.7	24	2.7	36
05-Nov-2004	TSS	0.0162	0.6	0.0162	0.9	NULL	*****	3.3	24	3.3	36
06-Dec-2004	TSS	0.0096	0.6	0.0096	0.9	NULL	*****	2.3	24	2.3	36
05-Jan-2005	TSS	0.0063	0.6	0.0063	0.9	NULL	*****	1.52	24	1.52	36
07-Feb-2005	TSS	0.0075	0.6	0.0075	0.9	NULL	*****	1.8	24	1.8	36
07-Mar-2005	TSS	0.0127	0.6	0.0127	0.9	NULL	*****	2.8	24	2.8	36
07-Apr-2005	TSS	<.0045	0.6	<.0045	0.9	NULL	*****	<1.00	24	<1.00	36
05-May-2005	TSS	0.0159	0.6	0.0159	0.9	NULL	*****	2.8	24	2.8	36
08-Jun-2005	TSS	0.0053	0.6	0.0053	0.9	NULL	*****	1	24	1	36
11-Jul-2005	TSS	0.02	0.6	0.02	0.9	NULL	*****	3.3	24	3.3	36
11-Aug-2005	TSS	NULL	0.6	NULL	0.9	NULL	*****	NULL	24	NULL	36
07-Sep-2005	TSS	NULL	0.6	NULL	0.9	NULL	*****	NULL	24	NULL	36
06-Oct-2005	TSS	<.0061	0.6	<.0061	0.9	NULL	*****	<1.00	24	<1.00	36
09-Nov-2005	TSS	0.0097	0.6	0.0097	0.9	NULL	*****	1.6	24	1.6	36
06-Dec-2005	TSS	0.017	0.6	0.017	0.9	NULL	*****	3	24	3	36
09-Jan-2006	TSS	<.0061	0.6	<.0061	0.9	NULL	*****	<1.00	24	<1.00	36
06-Feb-2006	TSS	<.0057	0.6	<.0057	0.9	NULL	*****	<1.00	24	<1.00	36
06-Mar-2006	TSS	<.0061	0.6	<.0061	0.9	NULL	*****	<1.00	24	<1.00	36
07-Apr-2006	TSS	0.0071	0.6	0.0071	0.9	NULL	*****	1.1	24	1.1	36
05-May-2006	TSS	<.0061	0.6	<.0061	0.9	NULL	*****	<1.00	24	<1.00	36
08-Jun-2006	TSS	0.0188	0.6	0.0188	0.9	NULL	*****	3.1	24	3.1	36
10-Jul-2006	TSS	0.0187	0.6	0.0187	0.9	NULL	*****	2.9	24	2.9	36
07-Aug-2006	TSS	0.0177	0.6	0.0177	0.9	NULL	*****	3.9	24	3.9	36
08-Sep-2006	TSS	0.0331	0.6	0.0331	0.9	NULL	*****	4.6	24	4.6	36
12-Oct-2006	TSS	0.0347	0.6	0.0347	0.9	NULL	*****	5.4	24	5.4	36
08-Nov-2006	TSS	0.0309	0.6	0.0309	0.9	NULL	*****	4.8	24	4.8	36
08-Dec-2006	TSS	<.0076	0.6	<.0076	0.9	NULL	*****	<1.00	24	<1.00	36
09-Jan-2007	TSS	0.0101	0.6	0.0101	0.9	NULL	*****	1.4	24	1.4	36
07-Feb-2007	TSS	0.0089	0.6	0.0089	0.9	NULL	*****	1.3	24	1.3	36
05-Mar-2007	TSS	0.0064	0.6	0.0064	0.9	NULL	*****	<1.00	24	<1.00	36
03-Apr-2007	TSS	0.0079	0.6	0.0079	0.9	NULL	*****	1.1	24	1.1	36
04-May-2007	TSS	0.0101	0.6	0.0101	0.9	NULL	*****	1.4	24	1.4	36
05-Jun-2007	TSS	<.0072	0.6	<.0072	0.9	NULL	*****	<1.00	24	<1.00	36
02-Jul-2007	TSS	0.0182	0.6	0.0182	0.9	NULL	*****	2.4	24	2.4	36
06-Aug-2007	TSS	NULL	0.6	NULL	0.9	NULL	*****	NULL	24	NULL	36
05-Sep-2007	TSS	NULL	0.6	NULL	0.9	NULL	*****	NULL	24	NULL	36

Rec'd	Parameter Description	QTY AVG	Lim Avg	QTY MAX	Lim Max	CONC MIN	Lim Min	CONC AVG	Lim Avg	CONC MAX	Lim Max
05-Oct-2007	TSS	0.0121	0.6	0.0121	0.9	NULL	*****	1.6	24	1.6	36
05-Nov-2007	TSS	0.0245	0.6	0.0245	0.9	NULL	*****	3.4	24	3.4	36
05-Dec-2007	TSS	0.0089	0.6	0.0089	0.9	NULL	*****	2.6	24	2.6	36
07-Jan-2008	TSS	0.0091	0.6	0.0091	0.9	NULL	*****	1.2	24	1.2	36
08-Feb-2008	TSS	0.0129	0.6	0.0129	0.9	NULL	*****	1.8	24	1.8	36
06-Mar-2008	TSS	0.0072	0.6	0.0072	0.9	NULL	*****	<1.00	24	<1.00	36
09-Apr-2008	TSS	0.0102	0.6	0.0102	0.9	NULL	*****	1.5	24	1.5	36
09-May-2008	TSS	0.0194	0.6	0.0194	0.9	NULL	*****	2.7	24	2.7	36
02-Jun-2008	TSS	0.0079	0.6	0.0079	0.9	NULL	*****	1	24	1	36
07-Jul-2008	TSS	0.0167	0.6	0.0167	0.9	NULL	*****	2.2	24	2.2	36

Analysis of the Lucketts ES effluent data for ammonia

The statistics for ammonia are:

Number of values = 1
Quantification level = .2
Number = quantification = 0
Expected value = 10
Variance = 36.00001
C.V. = .6
97th percentile = 24.33418
Statistics used = Reasonable potential assumptions - Type 2 data

The WLAs for ammonia are:

Acute WLA = 17.8
Chronic WLA = 1.4
Human Health WLA = ----

The limits are based on chronic toxicity and 1 samples/month.

Maximum daily limit = 2.047605
Average monthly limit = 2.047605

DATA

10

9/3/2008 9:40:36 AM

Facility = Lucketts Elementary School
Chemical = Chlorine
Chronic averaging period = 4
WLAa = 0.019
WLAc = 0.011
Q.L. = .1
samples/mo. = 28
samples/wk. = 7

Summary of Statistics:

observations = 1
Expected Value = .2
Variance = .0144
C.V. = 0.6
97th percentile daily values = .486683
97th percentile 4 day average = .332758
97th percentile 30 day average = .241210
< Q.L. = 0
Model used = BPJ Assumptions, type 2 data

A limit is needed based on Chronic Toxicity
Maximum Daily Limit = 1.60883226245855E-02
Average Weekly limit = 9.8252545713861E-03
Average Monthly Limit = 8.02152773888032E-03

The data are:

0.2

Public Notice – Environmental Permit

PURPOSE OF NOTICE: To seek public comment on 1) a draft permit from the Department of Environmental Quality that will allow the release of treated wastewater into a water body in Loudoun County, Virginia and 2) a proposed modification to the completed Total Maximum Daily Load (TMDL) study for that same water body.

PUBLIC COMMENT PERIOD: November 13, 2008 to 5:00 p.m. on December 15, 2008

PERMIT NAME: Virginia Pollutant Discharge Elimination System Permit – Wastewater issued by DEQ, under the authority of the State Water Control Board

APPLICANT NAME, ADDRESS AND PERMIT NUMBER: Loudoun County School Board
21000 Education Court, Ashburn, VA 20148
VA0021750

NAME AND ADDRESS OF FACILITY: Lucketts Elementary School
14550 James Monroe Highway, Leesburg, VA 20176

PROJECT DESCRIPTION – PERMIT REISSUANCE: Loudoun County School Board has applied for a reissuance of a permit for the public Lucketts Elementary School STP. The applicant proposes to release treated sewage wastewaters from an elementary school and volunteer fire station at a rate of 0.0063 million gallons per day into a water body. The applicant has requested a proposed expansion to 0.01175 million gallons per day. Domestic sludge is not generated at this facility. The facility proposes to release the treated sewage in the Limestone Branch, UT, in Loudoun County in the Potomac River watershed. A watershed is the land area drained by a river and its incoming streams. The permit will limit the following pollutants to amounts that protect water quality: pH, BOD, Chlorine, TSS, DO, Ammonia and *E. coli*.

HOW TO COMMENT AND/OR REQUEST A PUBLIC HEARING FOR THE PERMIT REISSUANCE: DEQ accepts comments and requests for public hearing by e-mail, fax or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requestor, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. DEQ may hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the permit.

TMDL STUDY MODIFICATION: The Limestone Branch Bacteria TMDL was approved by the United States Environmental Protection Agency (EPA) on July 6, 2004. The TMDL included a waste load allocation (WLA) for Lucketts Elementary School STP (VPDES Permit Number VA0021750) based on their maximum permitted design flow at the time of TMDL completion (0.0063 million gallons per day). VA0021750 has requested an expansion of their maximum permitted design flow to 0.01175 million gallons per day.

In the original TMDL, discharges from permitted point sources were increased by two and five times the existing permit levels to determine the effect of possible expansion by current facilities, or the issuance of new permits within the watershed. The increases did not result in additional exceedances of the water quality standard. Thus, the TMDL will be modified to include this expanded discharge.

HOW TO COMMENT ON THE TMDL MODIFICATION: DEQ accepts comments by e-mail, fax or postal mail. All comments must be in writing and be received by DEQ during the comment period. The public also may request a public meeting. Written comments should include the names, mailing addresses and telephone numbers of the person commenting. To review the draft TMDL modification, please contact Katie Conaway at mkconaway@deq.virginia.gov; (703) 583-3804.

CONTACT FOR PUBLIC COMMENTS, DOCUMENT REQUESTS AND ADDITIONAL INFORMATION: The public may review the documents at the DEQ-Northern Regional Office by appointment.

Name: Douglas Frasier

Address: DEQ-Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193

Phone: (703) 583-3873 E-mail: ddfrasier@deq.virginia.gov Fax: (703) 583-3821

Revised 2/2003

**State “Transmittal Checklist” to Assist in Targeting
Municipal and Industrial Individual NPDES Draft Permits for Review**

Part I. State Draft Permit Submission Checklist

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name:	Lucketts Elementary School
NPDES Permit Number:	VA0021750
Permit Writer Name:	Douglas Frasier
Date:	9 September 2008

Major ☐

Minor ☒

Industrial ☐

Municipal ☒

I.A. Draft Permit Package Submittal Includes:

	Yes	No	N/A
1. Permit Application?	X		
2. Complete Draft Permit (for renewal or first time permit – entire permit, including boilerplate information)?	X		
3. Copy of Public Notice?	X		
4. Complete Fact Sheet?	X		
5. A Priority Pollutant Screening to determine parameters of concern?			X
6. A Reasonable Potential analysis showing calculated WQBELs?	X		
7. Dissolved Oxygen calculations?	X		
8. Whole Effluent Toxicity Test summary and analysis?			X
9. Permit Rating Sheet for new or modified industrial facilities?			X

I.B. Permit/Facility Characteristics

	Yes	No	N/A
1. Is this a new, or currently unpermitted facility?		X	
2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	X		
3. Does the fact sheet or permit contain a description of the wastewater treatment process?	X		
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?		X	
5. Has there been any change in streamflow characteristics since the last permit was developed?		X	
6. Does the permit allow the discharge of new or increased loadings of any pollutants?	X		
7. Does the fact sheet or permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	X		
8. Does the facility discharge to a 303(d) listed water?		X	
a. Has a TMDL been developed and approved by EPA for the impaired water?	X		
b. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit?			X
c. Does the facility discharge a pollutant of concern identified in the TMDL or 303(d) listed water?	X		
9. Have any limits been removed, or are any limits less stringent, than those in the current permit?		X	
10. Does the permit authorize discharges of storm water?		X	

I.B. Permit/Facility Characteristics – cont.	Yes	No	N/A
11. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?		X	
12. Are there any production-based, technology-based effluent limits in the permit?	X		
13. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?		X	
14. Are any WQBELs based on an interpretation of narrative criteria?		X	
15. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?		X	
16. Does the permit contain a compliance schedule for any limit or condition?		X	
17. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?		X	
18. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?	X		
19. Is there any indication that there is significant public interest in the permit action proposed for this facility?		X	
20. Have previous permit, application, and fact sheet been examined?	X		

Part II. NPDES Draft Permit Checklist

Region III NPDES Permit Quality Checklist – for POTWs (To be completed and included in the record only for POTWs)

II.A. Permit Cover Page/Administration	Yes	No	N/A
1. Does the fact sheet or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	X		
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	X		

II.B. Effluent Limits – General Elements	Yes	No	N/A
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	X		
2. Does the fact sheet discuss whether “antibacksliding” provisions were met for any limits that are less stringent than those in the previous NPDES permit?			X

II.C. Technology-Based Effluent Limits (POTWs)	Yes	No	N/A
1. Does the permit contain numeric limits for <u>ALL</u> of the following: BOD (or alternative, e.g., CBOD, COD, TOC), TSS, and pH?	X		
2. Does the permit require at least 85% removal for BOD (or BOD alternative) and TSS (or 65% for equivalent to secondary) consistent with 40 CFR Part 133?	X		
a. If no, does the record indicate that application of WQBELs, or some other means, results in more stringent requirements than 85% removal or that an exception consistent with 40 CFR 133.103 has been approved?			X
3. Are technology-based permit limits expressed in the appropriate units of measure (e.g., concentration, mass, SU)?	X		
4. Are permit limits for BOD and TSS expressed in terms of both long term (e.g., average monthly) and short term (e.g., average weekly) limits?	X		
5. Are any concentration limitations in the permit less stringent than the secondary treatment requirements (30 mg/l BOD5 and TSS for a 30-day average and 45 mg/l BOD5 and TSS for a 7-day average)?		X	
a. If yes, does the record provide a justification (e.g., waste stabilization pond, trickling filter, etc.) for the alternate limitations?			X

II.D. Water Quality-Based Effluent Limits	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?	X		
2. Does the fact sheet indicate that any WQBELs were derived from a completed and EPA approved TMDL?	X		
3. Does the fact sheet provide effluent characteristics for each outfall?	X		
4. Does the fact sheet document that a “reasonable potential” evaluation was performed?	X		
a. If yes, does the fact sheet indicate that the “reasonable potential” evaluation was performed in accordance with the State’s approved procedures?	X		
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?			X
c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have “reasonable potential”?	X		
d. Does the fact sheet indicate that the “reasonable potential” and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations)?			X
e. Does the permit contain numeric effluent limits for all pollutants for which “reasonable potential” was determined?	X		

II.D. Water Quality-Based Effluent Limits – cont.	Yes	No	N/A
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?	X		
6. For all final WQBELs, are BOTH long-term AND short-term effluent limits established?	X		
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?	X		
8. Does the record indicate that an “antidegradation” review was performed in accordance with the State’s approved antidegradation policy?	X		

II.E. Monitoring and Reporting Requirements	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters and other monitoring as required by State and Federal regulations?	X		
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?		X	
3. Does the permit require at least annual influent monitoring for BOD (or BOD alternative) and TSS to assess compliance with applicable percent removal requirements?		X	
4. Does the permit require testing for Whole Effluent Toxicity?			X

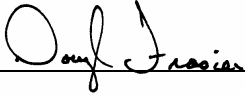
II.F. Special Conditions	Yes	No	N/A
1. Does the permit include appropriate biosolids use/disposal requirements?			X
2. Does the permit include appropriate storm water program requirements?			X

II.F. Special Conditions – cont.	Yes	No	N/A
3. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			X
4. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?	X		
5. Does the permit allow/authorize discharge of sanitary sewage from points other than the POTW outfall(s) or CSO outfalls [i.e., Sanitary Sewer Overflows (SSOs) or treatment plant bypasses]?			X
6. Does the permit authorize discharges from Combined Sewer Overflows (CSOs)?			X
a. Does the permit require implementation of the “Nine Minimum Controls”?			X
b. Does the permit require development and implementation of a “Long Term Control Plan”?			X
c. Does the permit require monitoring and reporting for CSO events?			X
7. Does the permit include appropriate Pretreatment Program requirements?			X

II.G. Standard Conditions	Yes	No	N/A
1. Does the permit contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?	X		
List of Standard Conditions – 40 CFR 122.41			
Duty to comply	Property rights	Reporting Requirements	
Duty to reapply	Duty to provide information	Planned change	
Need to halt or reduce activity	Inspections and entry	Anticipated noncompliance	
not a defense	Monitoring and records	Transfers	
Duty to mitigate	Signatory requirement	Monitoring reports	
Proper O & M	Bypass	Compliance schedules	
Permit actions	Upset	24-Hour reporting	
		Other non-compliance	
2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for POTWs regarding notification of new introduction of pollutants and new industrial users [40 CFR 122.42(b)]?	X		

Part III. Signature Page

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department/Division and/or made available to the Department/Division, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	<u>Douglas Frasier</u>
Title	<u>Environmental Specialist II</u>
Signature	<u></u>
Date	<u>9 September 2008</u>